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 Goddard, Audrey
 Godowski, Paul J.
 Grimaldi, J. Christopher
 Gurney, Austin L.
 Kljavin, Ivar J.
 Napier, Mary A.
 Pan, James
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 Roy, Margaret Ann
 Stewart, Timothy A.
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 Watanabe, Colin K.
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 Wood, William I.
 Zhang, Zemin
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 Phe Leu Tyr Arg Phe Gln Ile Trp Arg Pro Ile Thr Ala Thr Phe
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 Tyr Phe Pro Val Gly Pro Gly Thr Gly Phe Leu Tyr Leu Val Asn
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 Leu Tyr Phe Leu Tyr Gln Tyr Ser Thr Arg Leu Glu Thr Gly Ala
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 Phe Asp Gly Arg Pro Ala Asp Tyr Leu Phe Met Leu Leu Phe Asn
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Lys	Ala	Cys	Tyr	Leu	Pro	Trp	Val	Ile	Leu	Gly	Phe	Asn	Tyr	Ile	
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Gly	Arg	Asn	Phe	Leu	Ser	Thr	Pro	Gln	Phe	Leu	Tyr	Arg	Trp	Leu	
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Pro	Ser	Arg	Arg	Gly	Gly	Val	Ser	Gly	Phe	Gly	Val	Pro	Pro	Ala	
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Ser	Met	Arg	Arg	Ala	Ala	Asp	Gln	Asn	Gly	Gly	Gly	Gly	Arg	His	
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<211> 367

<212> PRT

<213> Homo sapiens

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				50					55				60	
Val	Pro	Leu	Val	Phe	Asp	Asp	Glu	Glu	Glu	Ser	Lys	Leu	Thr	Tyr
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Thr	Glu	Ile	His	Gln	Glu	Tyr	Lys	Glu	Leu	Val	Glu	Lys	Leu	Leu
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Glu	Gly	Tyr	Leu	Lys	Glu	Ile	Gly	Ile	Asn	Glu	Asp	Gln	Phe	Gln
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Glu	Ala	Cys	Thr	Ser	Pro	Leu	Ala	Lys	Thr	His	Thr	Ser	Gln	Ala
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Ala	Met	Met	Val	Gln	Lys	Asn	Ile	Glu	Met	Gln	Leu	Gln	Ala	Ile
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Ile	Leu	Arg	Glu	Val	Leu	Arg	Lys	Ser	Lys	Glu	Glu	Tyr	Asp	Gln	
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Ala Gly Thr Lys	Thr Leu Gln His Asn Leu	Ala Gly Arg Gly	Phe
170	175		180
His His Asp Ala	Phe Phe Ser Pro Ser Asn	Ser Cys Leu Leu	Phe
185	190		195
Arg Ser Glu Cys	Pro Arg Lys Asp Asn Cys	Thr Ala Lys Glu	Trp
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Thr Phe Pro Glu	Ala Lys Trp Asn Thr Thr	Ala Arg Val Phe	Ser
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His Ile Arg Leu	Gly Met Gly His Val Leu	Ile Ile Val Gln	Cys
230	235		240
Phe Ile Ser Ser	Met Ala Asn Ile Tyr Asn	Glu Lys Ile Leu	Lys
245	250		255
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Gln Arg Ser Asn	Arg Asp Gln Ile Lys Asn	Cys Gly Phe Phe	Tyr
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Gly His Ser Ala	Phe Ser Val Ala Leu Ile	Phe Val Thr Ala	Phe
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Gln Gly Leu Ser	Val Ala Phe Ile Leu Lys	Phe Leu Asp Asn	Met
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Phe His Val Leu	Met Ala Gln Val Thr Thr	Val Ile Ile Thr	Thr
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Val Ser Val Leu	Val Phe Asp Phe Arg Pro	Ser Leu Glu Phe	Phe
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365	370		375
Ser Lys Pro Gln	Val Pro Glu Tyr Ala Pro	Arg Gln Glu Arg	Ile
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Arg Asp Leu Ser	Gly Asn Leu Trp Glu Arg	Ser Ser Gly Asp	Gly
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<223> Synthetic oligonucleotide probe

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<211> 2142

<212> DNA

<213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Gly Ser Ser Ser Pro Arg Pro Trp Pro Ser Leu Pro Thr Ser Ser
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 65 70 75
 Cys Phe Ser Ile Ala Ser Leu Lys Gln Trp Ser Arg Val Ser Met
 80 85 90
 Phe Pro Thr Arg Leu Ser Pro Cys Ser Ser Ala Thr Glu Gln Thr
 95 100 105

Glu Arg Asp Ser	Ala 110	Thr Ala Tyr Arg	Met 115	Thr Val Glu Val	Leu 120
Gly Thr Val Leu	Gly 125	Thr Ala Ile Gln	Gly 130	Gln Ile Val Gly	Gln 135
Ala Asp Thr Pro	Cys 140	Phe Gln Asp Phe	Asn 145	Ser Ser Thr Val	Ala 150
Ser Gln Ser Ala	Asn 155	His Thr His Gly	Thr 160	Thr Ser His Arg	Glu 165
Thr Gln Lys Ala	Tyr 170	Leu Leu Ala Ala	Gly 175	Val Ile Val Cys	Ile 180
Tyr Ile Ile Cys	Ala 185	Val Ile Leu Ile	Leu 190	Gly Val Arg Glu	Gln 195
Arg Glu Pro Tyr	Glu 200	Ala Gln Gln Ser	Glu 205	Pro Ile Ala Tyr	Phe 210
Arg Gly Leu Arg	Leu 215	Val Met Ser His	Gly 220	Pro Tyr Ile Lys	Leu 225
Ile Thr Gly Phe	Leu 230	Phe Thr Ser Leu	Ala 235	Phe Met Leu Val	Glu 240
Gly Asn Phe Val	Leu 245	Phe Cys Thr Tyr	Thr 250	Leu Gly Phe Arg	Asn 255
Glu Phe Gln Asn	Leu 260	Leu Leu Ala Ile	Met 265	Leu Ser Ala Thr	Leu 270
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Thr Ala Val Tyr	Val 290	Gly Ile Ser Ser	Ala 295	Val Pro Phe Leu	Ile 300
Leu Val Ala Leu	Met 305	Glu Ser Asn Leu	Ile 310	Ile Thr Tyr Ala	Val 315
Ala Val Ala Ala	Gly 320	Ile Ser Val Ala	Ala 325	Ala Phe Leu Leu	Pro 330
Trp Ser Met Leu	Pro 335	Asp Val Ile Asp	Asp 340	Phe His Leu Lys	Gln 345
Pro His Phe His	Gly 350	Thr Glu Pro Ile	Phe 355	Phe Ser Phe Tyr	Val 360
Phe Phe Thr Lys	Phe 365	Ala Ser Gly Val	Ser 370	Leu Gly Ile Ser	Thr 375
Leu Ser Leu Asp	Phe 380	Ala Gly Tyr Gln	Thr 385	Arg Gly Cys Ser	Gln 390
Pro Glu Arg Val	Lys 395	Phe Thr Leu Asn	Met 400	Leu Val Thr Met	Ala 405
Pro Ile Val Leu	Ile 410	Leu Leu Gly Leu	Leu 415	Leu Phe Lys Met	Tyr 420

Pro Ile Asp Glu Glu Arg Arg Arg Gln Asn Lys Lys Ala Leu Gln
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Ala Leu Arg Asp Glu Ala Ser Ser Ser Gly Cys Ser Glu Thr Asp
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Ser Thr Glu Leu Ala Ser Ile Leu
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 <213> Homo sapiens

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 accctatgaa gccagcagct ctgagccaat cgcctacttc cggggcctac 150
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 <211> 1173
 <212> DNA
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 aatattcggg cagttttatg cattgctacc atttatgttc gttataagca 350
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 ctggccttgt acttggaata ctgagttgtt taggactttc tattgtggca 450

aacttcaga aaacaaccct ttttgctgca catgtaagtg gagctgtgct 500
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<210> 23
<211> 266
<212> PRT
<213> Homo sapiens

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Val Thr Leu His His Ile Asp Pro Ala Leu Pro Tyr Ile Ser Asp
35 40 45
Thr Gly Thr Val Ala Pro Glu Lys Cys Leu Phe Gly Ala Met Leu
50 55 60
Asn Ile Ala Ala Val Leu Cys Ile Ala Thr Ile Tyr Val Arg Tyr
65 70 75
Lys Gln Val His Ala Leu Ser Pro Glu Glu Asn Val Ile Ile Lys
80 85 90
Leu Asn Lys Ala Gly Leu Val Leu Gly Ile Leu Ser Cys Leu Gly
95 100 105
Leu Ser Ile Val Ala Asn Phe Gln Lys Thr Thr Leu Phe Ala Ala
110 115 120
His Val Ser Gly Ala Val Leu Thr Phe Gly Met Gly Ser Leu Tyr
125 130 135

Met	Phe	Val	Gln	Thr	Ile	Leu	Ser	Tyr	Gln	Met	Gln	Pro	Lys	Ile
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His	Gly	Lys	Gln	Val	Phe	Trp	Ile	Arg	Leu	Leu	Leu	Val	Ile	Trp
				155					160					165
Cys	Gly	Val	Ser	Ala	Leu	Ser	Met	Leu	Thr	Cys	Ser	Ser	Val	Leu
				170					175					180
His	Ser	Gly	Asn	Phe	Gly	Thr	Asp	Leu	Glu	Gln	Lys	Leu	His	Trp
				185					190					195
Asn	Pro	Glu	Asp	Lys	Gly	Tyr	Val	Leu	His	Met	Ile	Thr	Thr	Ala
				200					205					210
Ala	Glu	Trp	Ser	Met	Ser	Phe	Ser	Phe	Phe	Gly	Phe	Phe	Leu	Thr
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Tyr	Ile	Arg	Asp	Phe	Gln	Lys	Ile	Ser	Leu	Arg	Val	Glu	Ala	Asn
				230					235					240
Leu	His	Gly	Leu	Thr	Leu	Tyr	Asp	Thr	Ala	Pro	Cys	Pro	Ile	Asn
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 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 14, 484
 <223> unknown base

<400> 24
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 gagcggagat cctcaaacgg cctagtgcct cgcgcttcgg gagaaaatca 150
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 aaccctttcc cacaaaagct aattgagtag acgttcctgt tgagtacacg 250
 ttcctgttga tttacaaaag gtgcaggtat gagcaggtc gaagactaac 300
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 gcaaggccct agtttccttc ctacagccct tgtaatttgg acatctgctg 400
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<210> 25
 <211> 40
 <212> DNA
 <213> Artificial Sequence

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<220>
<223> Synthetic oligonucleotide probe

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<210> 26
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

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<210> 27
<211> 1399
<212> DNA
<213> Homo sapiens

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gactgccccg cggcgcgaga ctgggctcca ccgaggaggc tggaggcagg 200
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<210> 28

<211> 264

<212> PRT

<213> Homo sapiens

<400> 28

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Phe	Ala	Leu	Tyr	Leu	Leu	Ser	Thr	Arg	Leu	Pro	Arg	Gly	Arg	Arg
			20					25						30
Leu	Gly	Ser	Thr	Glu	Glu	Ala	Gly	Gly	Arg	Ser	Leu	Trp	Phe	Pro
				35					40					45
Ser	Asp	Leu	Ala	Glu	Leu	Arg	Glu	Leu	Ser	Glu	Val	Leu	Arg	Glu
				50					55					60
Tyr	Arg	Lys	Glu	His	Gln	Ala	Tyr	Val	Phe	Leu	Leu	Phe	Cys	Gly
				65					70					75
Ala	Tyr	Leu	Tyr	Lys	Gln	Gly	Phe	Ala	Ile	Pro	Gly	Ser	Ser	Phe
				80					85					90
Leu	Asn	Val	Leu	Ala	Gly	Ala	Leu	Phe	Gly	Pro	Trp	Leu	Gly	Leu
				95					100					105
Leu	Leu	Cys	Cys	Val	Leu	Thr	Ser	Val	Gly	Ala	Thr	Cys	Cys	Tyr
				110					115					120
Leu	Leu	Ser	Ser	Ile	Phe	Gly	Lys	Gln	Leu	Val	Val	Ser	Tyr	Phe
				125					130					135
Pro	Asp	Lys	Val	Ala	Leu	Leu	Gln	Arg	Lys	Val	Glu	Glu	Asn	Arg
				140					145					150
Asn	Ser	Leu	Phe	Phe	Phe	Leu	Leu	Phe	Leu	Arg	Leu	Phe	Pro	Met
				155					160					165
Thr	Pro	Asn	Trp	Phe	Leu	Asn	Leu	Ser	Ala	Pro	Ile	Leu	Asn	Ile
				170					175					180
Pro	Ile	Val	Gln	Phe	Phe	Phe	Ser	Val	Leu	Ile	Gly	Leu	Ile	Pro
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Tyr	Asn	Phe	Ile	Cys	Val	Gln	Thr	Gly	Ser	Ile	Leu	Ser	Thr	Leu
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Thr Ser Leu Asp Ala Leu Phe Ser Trp Asp Thr Val Phe Lys Leu
 215 220
 Leu Ala Ile Ala Met Val Ala Leu Ile Pro Gly Thr Leu Ile Lys
 230 235 240
 Lys Phe Ser Gln Lys His Leu Gln Leu Asn Glu Thr Ser Thr Ala
 245 250 255
 Asn His Ile His Ser Arg Lys Asp Thr
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<210> 29
 <211> 1292
 <212> DNA
 <213> Homo sapiens

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 tggaagacat ggatcttgct gccaacgaga tcagcattta tgacaaactt 200
 tcagagactg ttgatttggg gagacagacc ggccatcagt gtggcatgtc 250
 agagaagcca attgaaaaat ttatcagaca gctgctggaa aagaatgaac 300
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<210> 30
 <211> 347
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Asn Glu Pro Gln Arg Pro Pro Pro Gln Tyr Pro Leu Leu Ile Val
 50 55 60
 Val Tyr Lys Val Leu Ala Thr Leu Gly Leu Ile Leu Leu Thr Ala
 65 70 75
 Tyr Phe Val Ile Gln Pro Phe Ser Pro Leu Ala Pro Glu Pro Val
 80 85 90
 Leu Ser Gly Ala His Thr Trp Arg Ser Leu Ile His His Ile Arg
 95 100 105
 Leu Met Ser Leu Pro Ile Ala Lys Lys Tyr Met Ser Glu Asn Lys
 110 115 120
 Gly Val Pro Leu His Gly Gly Asp Glu Asp Arg Pro Phe Pro Asp
 125 130 135
 Phe Asp Pro Trp Trp Thr Asn Asp Cys Glu Gln Asn Glu Ser Glu
 140 145 150
 Pro Ile Pro Ala Asn Cys Thr Gly Cys Ala Gln Lys His Leu Lys
 155 160 165
 Val Met Leu Leu Glu Asp Ala Pro Arg Lys Phe Glu Arg Leu His
 170 175 180
 Pro Leu Val Ile Lys Thr Gly Lys Pro Leu Leu Glu Glu Glu Ile
 185 190 195
 Gln His Phe Leu Cys Gln Tyr Pro Glu Ala Thr Glu Gly Phe Ser
 200 205 210
 Glu Gly Phe Phe Ala Lys Trp Trp Arg Cys Phe Pro Glu Arg Trp
 215 220 225
 Phe Pro Phe Pro Tyr Pro Trp Arg Arg Pro Leu Asn Arg Ser Gln
 230 235 240
 Met Leu Arg Glu Leu Phe Pro Val Phe Thr His Leu Pro Phe Pro
 245 250 255

Lys Asp Ala Ser Leu Asn Lys Cys Ser Phe Leu His Pro Glu Pro
 260 265 270
 Val Val Gly Ser Lys Met His Lys Met Pro Asp Leu Phe Ile Ile
 275 280 285
 Gly Ser Gly Glu Ala Met Leu Gln Leu Ile Pro Pro Phe Gln Cys
 290 295 300
 Arg Arg His Cys Gln Ser Val Ala Met Pro Ile Glu Pro Gly Asp
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 Glu Leu

<210> 31
 <211> 478
 <212> DNA
 <213> Homo sapiens

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<210> 32
 <211> 3531
 <212> DNA
 <213> Homo sapiens

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 gggcctggag gatggcaagc tcatcgtggt ggtcgcgggg cagccctctg 3200
 aggtgcgcag cagccagttc gcgcggaagc tgtggcgggtc ctgcggcgcc 3250
 atctcccagg tgtcctcggg agagacggaa tacaacccta ctgaggcgcg 3300
 ctgaacctgg ccagtccggc gtctcgggcc ccgcccccg caggcctggc 3350
 ccgggaggcc ccggccagaa gtccggcgga acaccccggg gtgggcagcc 3400
 caggggggtg gcggggccca ccctgccag ctcagggtatt ggcgggcgat 3450

gttaccacct cagggattgg cgggcggaag tcccgccctt cgccggctga 3500
 ggggcgcgcc tgagggccag cactggcgctc t 3531

<210> 33
 <211> 1003
 <212> PRT
 <213> Homo sapiens

<400> 33
 Met Ser Gln Phe Glu Met Asp Thr Tyr Ala Lys Ser His Asp Leu
 1 5 10 15
 Met Ser Gly Phe Trp Asn Ala Cys Tyr Asp Met Leu Met Ser Ser
 20 25 30
 Gly Gln Arg Arg Gln Trp Glu Arg Ala Gln Ser Arg Arg Ala Phe
 35 40 45
 Gln Glu Leu Val Leu Glu Pro Ala Gln Arg Arg Ala Arg Leu Glu
 50 55 60
 Gly Leu Arg Tyr Thr Ala Val Leu Lys Gln Gln Ala Thr Gln His
 65 70 75
 Ser Met Ala Leu Leu His Trp Gly Ala Leu Trp Arg Gln Leu Ala
 80 85 90
 Ser Pro Cys Gly Ala Trp Ala Leu Arg Asp Thr Pro Ile Pro Arg
 95 100 105
 Trp Lys Leu Ser Ser Ala Glu Thr Tyr Ser Arg Met Arg Leu Lys
 110 115 120
 Leu Val Pro Asn His His Phe Asp Pro His Leu Glu Ala Ser Ala
 125 130 135
 Leu Arg Asp Asn Leu Gly Glu Val Pro Leu Thr Pro Thr Glu Glu
 140 145 150
 Ala Ser Leu Pro Leu Ala Val Thr Lys Glu Ala Lys Val Ser Thr
 155 160 165
 Pro Pro Glu Leu Leu Gln Glu Asp Gln Leu Gly Glu Asp Glu Leu
 170 175 180
 Ala Glu Leu Glu Thr Pro Met Glu Ala Ala Glu Leu Asp Glu Gln
 185 190 195
 Arg Glu Lys Leu Val Leu Ser Ala Glu Cys Gln Leu Val Thr Val
 200 205 210
 Val Ala Val Val Pro Gly Leu Leu Glu Val Thr Thr Gln Asn Val
 215 220 225
 Tyr Phe Tyr Asp Gly Ser Thr Glu Arg Val Glu Thr Glu Glu Gly
 230 235 240
 Ile Gly Tyr Asp Phe Arg Arg Pro Leu Ala Gln Leu Arg Glu Val
 245 250 255
 His Leu Arg Arg Phe Asn Leu Arg Arg Ser Ala Leu Glu Leu Phe
 260 265 270

Phe Ile Asp Gln	Ala Asn Tyr Phe Leu	Asn Phe Pro Cys Lys Val	275	280	285
Gly Thr Thr Pro	Val Ser Ser Pro Ser	Gln Thr Pro Arg Pro Gln	290	295	300
Pro Gly Pro Ile	Pro Pro His Thr Gln	Val Arg Asn Gln Val Tyr	305	310	315
Ser Trp Leu Leu	Arg Leu Arg Pro Pro	Ser Gln Gly Tyr Leu Ser	320	325	330
Ser Arg Ser Pro	Gln Glu Met Leu Arg	Ala Ser Gly Leu Thr Gln	335	340	345
Lys Trp Val Gln	Arg Glu Ile Ser Asn	Phe Glu Tyr Leu Met Gln	350	355	360
Leu Asn Thr Ile	Ala Gly Arg Thr Tyr	Asn Asp Leu Ser Gln Tyr	365	370	375
Pro Val Phe Pro	Trp Val Leu Gln Asp	Tyr Val Ser Pro Thr Leu	380	385	390
Asp Leu Ser Asn	Pro Ala Val Phe Arg	Asp Leu Ser Lys Pro Ile	395	400	405
Gly Val Val Asn	Pro Lys His Ala Gln	Leu Val Arg Glu Lys Tyr	410	415	420
Glu Ser Phe Glu	Asp Pro Ala Gly Thr	Ile Asp Lys Phe His Tyr	425	430	435
Gly Thr His Tyr	Ser Asn Ala Ala Gly	Val Met His Tyr Leu Ile	440	445	450
Arg Val Glu Pro	Phe Thr Ser Leu His	Val Gln Leu Gln Ser Gly	455	460	465
Arg Phe Asp Cys	Ser Asp Arg Gln Phe	His Ser Val Ala Ala Ala	470	475	480
Trp Gln Ala Arg	Leu Glu Ser Pro Ala	Asp Val Lys Glu Leu Ile	485	490	495
Pro Glu Phe Phe	Tyr Phe Pro Asp Phe	Leu Glu Asn Gln Asn Gly	500	505	510
Phe Asp Leu Gly	Cys Leu Gln Leu Thr	Asn Glu Lys Val Gly Asp	515	520	525
Val Val Leu Pro	Pro Trp Ala Ser Ser	Pro Glu Asp Phe Ile Gln	530	535	540
Gln His Arg Gln	Ala Leu Glu Ser Glu	Tyr Val Ser Ala His Leu	545	550	555
His Glu Trp Ile	Asp Leu Ile Phe Gly	Tyr Lys Gln Arg Gly Pro	560	565	570
Ala Ala Glu Glu	Ala Leu Asn Val Phe	Tyr Tyr Cys Thr Tyr Glu	575	580	585

Gly	Ala	Val	Asp	Leu	Asp	His	Val	Thr	Asp	Glu	Arg	Glu	Arg	Lys	590	595	600
Ala	Leu	Glu	Gly	Ile	Ile	Ser	Asn	Phe	Gly	Gln	Thr	Pro	Cys	Gln	605	610	615
Leu	Leu	Lys	Glu	Pro	His	Pro	Thr	Arg	Leu	Ser	Ala	Glu	Glu	Ala	620	625	630
Ala	His	Arg	Leu	Ala	Arg	Leu	Asp	Thr	Asn	Ser	Pro	Ser	Ile	Phe	635	640	645
Gln	His	Leu	Asp	Glu	Leu	Lys	Ala	Phe	Phe	Ala	Glu	Val	Thr	Val	650	655	660
Ser	Ala	Ser	Gly	Leu	Leu	Gly	Thr	His	Ser	Trp	Leu	Pro	Tyr	Asp	665	670	675
Arg	Asn	Ile	Ser	Asn	Tyr	Phe	Ser	Phe	Ser	Lys	Asp	Pro	Thr	Met	680	685	690
Gly	Ser	His	Lys	Thr	Gln	Arg	Leu	Leu	Ser	Gly	Pro	Trp	Val	Pro	695	700	705
Gly	Ser	Gly	Val	Ser	Gly	Gln	Ala	Leu	Ala	Val	Ala	Pro	Asp	Gly	710	715	720
Lys	Leu	Leu	Phe	Ser	Gly	Gly	His	Trp	Asp	Gly	Ser	Leu	Arg	Val	725	730	735
Thr	Ala	Leu	Pro	Arg	Gly	Lys	Leu	Leu	Ser	Gln	Leu	Ser	Cys	His	740	745	750
Leu	Asp	Val	Val	Thr	Cys	Leu	Ala	Leu	Asp	Thr	Cys	Gly	Ile	Tyr	755	760	765
Leu	Ile	Ser	Gly	Ser	Arg	Asp	Thr	Thr	Cys	Met	Val	Trp	Arg	Leu	770	775	780
Leu	His	Gln	Gly	Gly	Leu	Ser	Val	Gly	Leu	Ala	Pro	Lys	Pro	Val	785	790	795
Gln	Val	Leu	Tyr	Gly	His	Gly	Ala	Ala	Val	Ser	Cys	Val	Ala	Ile	800	805	810
Ser	Thr	Glu	Leu	Asp	Met	Ala	Val	Ser	Gly	Ser	Glu	Asp	Gly	Thr	815	820	825
Val	Ile	Ile	His	Thr	Val	Arg	Arg	Gly	Gln	Phe	Val	Ala	Ala	Leu	830	835	840
Arg	Pro	Leu	Gly	Ala	Thr	Phe	Pro	Gly	Pro	Ile	Phe	His	Leu	Ala	845	850	855
Leu	Gly	Ser	Glu	Gly	Gln	Ile	Val	Val	Gln	Ser	Ser	Ala	Trp	Glu	860	865	870
Arg	Pro	Gly	Ala	Gln	Val	Thr	Tyr	Ser	Leu	His	Leu	Tyr	Ser	Val	875	880	885
Asn	Gly	Lys	Leu	Arg	Ala	Ser	Leu	Pro	Leu	Ala	Glu	Gln	Pro	Thr	890	895	900

Ala Leu Thr Val Thr Glu Asp Phe Val Leu Leu Gly Thr Ala Gln
905 910 915

Cys Ala Leu His Ile Leu Gln Leu Asn Thr Leu Leu Pro Ala Ala
920 925 930

Pro Pro Leu Pro Met Lys Val Ala Ile Arg Ser Val Ala Val Thr
935 940 945

Lys Glu Arg Ser His Val Leu Val Gly Leu Glu Asp Gly Lys Leu
950 955 960

Ile Val Val Val Ala Gly Gln Pro Ser Glu Val Arg Ser Ser Gln
965 970 975

Phe Ala Arg Lys Leu Trp Arg Ser Ser Arg Arg Ile Ser Gln Val
980 985 990

Ser Ser Gly Glu Thr Glu Tyr Asn Pro Thr Glu Ala Arg
995 1000

<210> 34
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 34
tgactgcact accccgtggc aagctgttga gccagctcag ctg 43

<210> 35
<211> 1395
<212> DNA
<213> Homo sapiens

<400> 35
cggacgcgtg ggcggaacgc tgggggctgt gagaaagtgc caataaatac 50
atcatgcaac cccacggccc accttgtgaa ctctcgtgc ccagggtcta 100
tgtgcgtctt ccagggtctac tcatccaaag gcctaatacca acgttctgtc 150
ttcaatctgc aaatctatgg ggtcctgggg ctcttctgga cccttaactg 200
gggtactggc ctgggccaat gcgtcctcgc tggagccttt gcctccttct 250
actgggcctt ccacaagccc caggacatcc ctaccttccc cttaatctct 300
gccttcatcc gcacactccg ttaccacact gggtcattgg catttggagc 350
cctcatcctg accottgtgc agatagcccg ggttatcttg gagtatattg 400
accacaagct cagaggagtg cagaaccctg tagcccgcgt catcatgtgc 450
tgtttcaagt gctgcctctg gtgtctggaa aaatttatca agttcctaaa 500
ccgcaatgca tacatcatga tcgcatctc cgggaagaat ttctgtgtct 550
cagccaaaaa tgcgttcatg ctactcatgc gaaacattgt cagggtggtc 600
gtcctggaga aagtcacaga cctgctgctg ttctttggga agctgctggt 650

ggtcggaggc gtgggggtcc tgtccttctt ttttttctcc ggtcgcaccc 700
 cggggctggg taaagacttt aagagccccc acctcaacta ttactggctg 750
 cccatcatga cctccatcct gggggcctat gtcatcgcca ggggttcttt 800
 cagcgttttc ggcattgtgt tggacacgct ctctctctgc ttctgggaag 850
 acctggagcg gaacaacggc tccctggacc ggcctacta catgtccaag 900
 agccttctaa agattctggg caagaagaac gaggcgcccc cggacaacaa 950
 gaagaggaag aagtgcacgc tccggccctg atccaggact gcacccacc 1000
 cccaccgtcc agccatccaa cctcacttcg ctttacaggt ctccattttg 1050
 tggtaaaaaa aggttttagg ccaggcgccg tggctcacgc ctgtaatcca 1100
 acactttgag aggctgaggc gggcggatca cctgagtcag gagttcgaga 1150
 ccagcctggc caacatgggt aaacctcctg ctctattaaa aatacaaaaa 1200
 ttagccgaga gtggtggcat gcacctgtca tcccagctac tcgggagggt 1250
 gaggcaggag aatcgcttga acccgggagg cagaggttgc agtgagccga 1300
 gatcgcgcca ctgcactcca acctgggtga cagactctgt ctccaaaaca 1350
 aaacaaacaa acaaaaagat ttatttaaag atattttgtt aactc 1395

<210> 36

<211> 321

<212> PRT

<213> Homo sapiens

<400> 36

Arg Thr Arg Gly Arg Thr Arg Gly Gly Cys Glu Lys Val Pro Ile
1 5 10 15

Asn Thr Ser Cys Asn Pro Thr Ala His Leu Val Asn Ser Ser Cys
20 25 30

Pro Gly Leu Met Cys Val Phe Gln Gly Tyr Ser Ser Lys Gly Leu
35 40 45

Ile Gln Arg Ser Val Phe Asn Leu Gln Ile Tyr Gly Val Leu Gly
50 55 60

Leu Phe Trp Thr Leu Asn Trp Val Leu Ala Leu Gly Gln Cys Val
65 70 75

Leu Ala Gly Ala Phe Ala Ser Phe Tyr Trp Ala Phe His Lys Pro
80 85 90

Gln Asp Ile Pro Thr Phe Pro Leu Ile Ser Ala Phe Ile Arg Thr
95 100 105

Leu Arg Tyr His Thr Gly Ser Leu Ala Phe Gly Ala Leu Ile Leu
110 115 120

Thr Leu Val Gln Ile Ala Arg Val Ile Leu Glu Tyr Ile Asp His
125 130 135

Lys	Leu	Arg	Gly	Val	Gln	Asn	Pro	Val	Ala	Arg	Cys	Ile	Met	Cys	
				140					145					150	
Cys	Phe	Lys	Cys	Cys	Leu	Trp	Cys	Leu	Glu	Lys	Phe	Ile	Lys	Phe	
				155					160					165	
Leu	Asn	Arg	Asn	Ala	Tyr	Ile	Met	Ile	Ala	Ile	Tyr	Gly	Lys	Asn	
				170					175					180	
Phe	Cys	Val	Ser	Ala	Lys	Asn	Ala	Phe	Met	Leu	Leu	Met	Arg	Asn	
				185					190					195	
Ile	Val	Arg	Val	Val	Val	Leu	Asp	Lys	Val	Thr	Asp	Leu	Leu	Leu	
				200					205					210	
Phe	Phe	Gly	Lys	Leu	Leu	Val	Val	Gly	Gly	Val	Gly	Val	Leu	Ser	
				215					220					225	
Phe	Phe	Phe	Phe	Ser	Gly	Arg	Ile	Pro	Gly	Leu	Gly	Lys	Asp	Phe	
				230					235					240	
Lys	Ser	Pro	His	Leu	Asn	Tyr	Tyr	Trp	Leu	Pro	Ile	Met	Thr	Ser	
				245					250					255	
Ile	Leu	Gly	Ala	Tyr	Val	Ile	Ala	Ser	Gly	Phe	Phe	Ser	Val	Phe	
				260					265					270	
Gly	Met	Cys	Val	Asp	Thr	Leu	Phe	Leu	Cys	Phe	Leu	Glu	Asp	Leu	
				275					280					285	
Glu	Arg	Asn	Asn	Gly	Ser	Leu	Asp	Arg	Pro	Tyr	Tyr	Met	Ser	Lys	
				290					295					300	
Ser	Leu	Leu	Lys	Ile	Leu	Gly	Lys	Lys	Asn	Glu	Ala	Pro	Pro	Asp	
				305					310					315	
Asn	Lys	Lys	Arg	Lys	Lys										
				320											

<210> 37

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 37

tcgtgccag ggcgtgatgt gc 22

<210> 38

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 38

gtctttaccc agccccggga tgcg 24

<210> 39

<211> 50

<212> DNA
 <213> Artificial Sequence
 <220>
 <223> Synthetic oligonucleotide probe
 <400> 39
 ggcctaattcc aacgtttctgt cttcaatctg caaatctatg gggctcctggg 50
 <210> 40
 <211> 1365
 <212> DNA
 <213> Homo sapiens
 <400> 40
 gagtcttgac cgccgccggg ctcttggtac ctcagcgca gcccagcgg 50
 tccggccgcc gtggctatgt tcgtgtccga ttccgcgaaa gatttctacg 100
 aggtgggtcca gagccagagg gtccttctct tcgtggcctc ggacgtggat 150
 gctctgtgtg cgtgcaagat ccttcaggcc ttgttccagt gtgaccacgt 200
 gcaatatacg ctggttccag tttctgggtg gcaagaacct gaaactgcac 250
 ttcttgagca taaagaacag ttctattatt ttattctcat aaactgtgga 300
 gctaattgag acctattgga tattcttcaa cctgatgaag acatatatatt 350
 ctttgtgtgt gactcccata ggccagtcac tgcgtcaat gtatacaacg 400
 ataccagat caaattactc attaaacaag atgatgacct tgaagtctcc 450
 gcctatgaag acatcttcag ggatgaagag gaggatgaag agcattcagg 500
 aatgacagct gatgggtcag agccttctga gaagcgaca cggttagaag 550
 aggagatagt ggagcaaacc atgcggagga ggcagcgcg agagtggag 600
 gcccgagaa gagacatcct ctttgactac gagcagtatg aatatcatgg 650
 gacatcgtca gccatggtga tggttgagct ggcttgatg ctgtccaaag 700
 acctgaatga catgctgtg tgggccatcg ttggactaac agaccagtgg 750
 gtgcaagaca agatcactca aatgaaatac gtgactgatg ttggtgtcct 800
 gcagcgccac gtttcccgcc acaaccacgc gaacgaggat gaggagaaca 850
 cactctcctg ggaactgaca cggatctcct ttgagtatga cctccgcctg 900
 gtgctctacc agcactggtc cctccatgac agcctgtgca acaccagcta 950
 tacgcagacc aggttcaagc tgtggtctgt gcatggacag aagcggctcc 1000
 aggagtctct tgcagacatg ggtcttcccc tgaagcaggt gaagcagaag 1050
 ttccaggcca tggacatctc cttgaaggag aatttgcggg aaatgattga 1100
 agagtctgca aataaatttg ggatgaagga catgcgcgtg cagactttca 1150
 gcattcatct tgggttcaag cacaagtttc tggccagcga cgtggtcttt 1200

gccaccatgt ctttcatgga gagccccgag aaggatggct cagggacaga 1250
 tcacttcacg caggctctgg acagcctctc caggagtaac ctggacaagc 1300
 tgtaccatgg cctggaactc gccaaagaagc agctgcgagc caccacagca 1350
 accattgccg gctgc 1365

<210> 41
 <211> 566
 <212> PRT
 <213> Homo sapiens

<400> 41
 Met Phe Val Ser Asp Phe Arg Lys Glu Phe Tyr Glu Val Val Gln
 1 5 10 15
 Ser Gln Arg Val Leu Leu Phe Val Ala Ser Asp Val Asp Ala Leu
 20 25 30
 Cys Ala Cys Lys Ile Leu Gln Ala Leu Phe Gln Cys Asp His Val
 35 40 45
 Gln Tyr Thr Leu Val Pro Val Ser Gly Trp Gln Glu Leu Glu Thr
 50 55 60
 Ala Phe Leu Glu His Lys Glu Gln Phe His Tyr Phe Ile Leu Ile
 65 70 75
 Asn Cys Gly Ala Asn Val Asp Leu Leu Asp Ile Leu Gln Pro Asp
 80 85 90
 Glu Asp Thr Ile Phe Phe Val Cys Asp Ser His Arg Pro Val Asn
 95 100 105
 Val Val Asn Val Tyr Asn Asp Thr Gln Ile Lys Leu Leu Ile Lys
 110 115 120
 Gln Asp Asp Asp Leu Glu Val Pro Ala Tyr Glu Asp Ile Phe Arg
 125 130 135
 Asp Glu Glu Glu Asp Glu Glu His Ser Gly Asn Asp Ser Asp Gly
 140 145 150
 Ser Glu Pro Ser Glu Lys Arg Thr Arg Leu Glu Glu Glu Ile Val
 155 160 165
 Glu Gln Thr Met Arg Arg Arg Gln Arg Arg Glu Trp Glu Ala Arg
 170 175 180
 Arg Arg Asp Ile Leu Phe Asp Tyr Glu Gln Tyr Glu Tyr His Gly
 185 190 195
 Thr Ser Ser Ala Met Val Met Phe Glu Leu Ala Trp Met Leu Ser
 200 205 210
 Lys Asp Leu Asn Asp Met Leu Trp Trp Ala Ile Val Gly Leu Thr
 215 220 225
 Asp Gln Trp Val Gln Asp Lys Ile Thr Gln Met Lys Tyr Val Thr
 230 235 240
 Asp Val Gly Val Leu Gln Arg His Val Ser Arg His Asn His Arg

Asn Glu Asp Glu	245	Asn Thr Leu Ser	250	Val Asp Cys Thr Arg	255	Ile
260				265		270
Ser Phe Glu Tyr	275	Leu Arg Leu Val	280	Leu Tyr Gln His Trp	285	Ser
Leu His Asp Ser	290	Leu Cys Asn Thr Ser	295	Tyr Thr Ala Ala Arg	300	Phe
Lys Leu Trp Ser	305	Val His Gly Gln Lys	310	Arg Leu Gln Glu Phe	315	Leu
Ala Asp Met Gly	320	Leu Pro Leu Lys Gln	325	Val Lys Gln Lys Phe	330	Gln
Ala Met Asp Ile	335	Ser Leu Lys Glu Asn	340	Leu Arg Glu Met Ile	345	Glu
Glu Ser Ala Asn	350	Lys Phe Gly Met Lys	355	Asp Met Arg Val Gln	360	Thr
Phe Ser Ile His	365	Phe Gly Phe Lys His	370	Lys Phe Leu Ala Ser	375	Asp
Val Val Phe Ala	380	Thr Met Ser Leu Met	385	Glu Ser Pro Glu Lys	390	Asp
Gly Ser Gly Thr	395	Asp His Phe Ile Gln	400	Ala Leu Asp Ser Leu	405	Ser
Arg Ser Asn Leu	410	Asp Lys Leu Tyr His	415	Gly Leu Glu Leu Ala	420	Lys
Lys Gln Leu Arg	425	Ala Thr Gln Gln Thr	430	Ile Ala Ser Cys Leu	435	Cys
Thr Asn Leu Val	440	Ile Ser Gln Gly Pro	445	Phe Leu Tyr Cys Ser	450	Leu
Met Glu Gly Thr	455	Pro Asp Val Met Leu	460	Phe Ser Arg Pro Ala	465	Ser
Leu Ser Leu Leu	470	Ser Lys His Leu Leu	475	Lys Ser Phe Val Cys	480	Ser
Thr Lys Asn Arg	485	Arg Cys Lys Leu Leu	490	Pro Leu Val Met Ala	495	Ala
Pro Leu Ser Met	500	Glu His Gly Thr Val	505	Thr Val Val Gly Ile	510	Pro
Pro Glu Thr Asp	515	Ser Ser Asp Arg Lys	520	Asn Phe Phe Gly Arg	525	Ala
Phe Glu Lys Ala	530	Ala Glu Ser Thr Ser	535	Ser Arg Met Leu His	540	Asn
His Phe Asp Leu	545	Ser Val Ile Glu Leu	550	Lys Ala Glu Asp Arg	555	Ser
Lys Phe Leu Asp		Ala Leu Ile Ser Leu		Leu Ser		

<210> 42
 <211> 380
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 44, 118, 172, 183
 <223> unknown base

<400> 42
 gtacctcagc gcgagcgcca ggcgtccggc cgccgtggct atgntcgtgt 50
 ccgatttcgc caaagagttc tacgaggtgg tccagagcca gagggctcctt 100
 ctcttcgtgg cctcggangt ggatgctctg tgtgcgtgca agatccttca 150
 ggccttggtc cagtgtgacc angtgcaata tangctggtt ccagttttctg 200
 ggtggcaaga acttgaaact gcattttctg agcataaaga acagtttcat 250
 tattttattc tcataaactg tggagctaata gtagacctat tggatattct 300
 tcaacctgat gaagacacta tattctttgt gtgtgacacc cataggccag 350
 tcaatgttgt caatgtatac aacgataccc 380

<210> 43
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 43
 ttccgcaaag agttctacga ggtgg 25

<210> 44
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 44
 attgacaaca ttgactggcc tatggg 26

<210> 45
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 45
 gtggatgctc tgtgtgcgtg caagatcctt caggccttgt tccagtgtga 50

<210> 46

<211> 3089
 <212> DNA
 <213> Homo sapiens

<400> 46
 caggaacccct ctctttgggt ctggattggg accccctttcc agtaccattt 50
 tttctagtga accacgaag gacgatacca gaaaacaccc tcaacccaaa 100
 ggaaatagac tacagcccca attggctgac tttggctata gaaaaaagaa 150
 aggaacgaaa agagacagtt ttttttggaa agctaagtct tccctttatc 200
 gagtcaagaa acccccccct cttgagctat ttacagcttt taacaattga 250
 gtaaagtacg ctccggtcac catggtgaca gccgccctgg gtcocgtctg 300
 gccagcgctc ctgctctttc tctgatgtg tgagatccgt atgggtggagc 350
 tcacctttga cagagctgtg gccagcggct gccaacgggtg ctgtgactct 400
 gaggaccccc tggatcctgc ccatgtatcc tcagcctctt cctccggccg 450
 cccccacgcc ctgctctgaga tcagacccta cattaatatc accatcctga 500
 aggggtgacaa aggggaccca ggcccaatgg gcctgccagg gtacatgggc 550
 agggagggtc cccaagggga gcttggccct caggggcagca agggtgacaa 600
 gggggagatg ggacgccccg gcgccccgtg ccagaagcgc ttcttcgcct 650
 tctcagtggt cgcgaagacg gccctgcaca gcggcgagga cttccagacg 700
 ctgctcttcg aaagggtctt tgtgaacctt gatgggtgct ttgacatggc 750
 gaccggccag tttgctgctc cctgctgtgg catctacttc ttcagcctca 800
 atgtgcacag ctggaattac aaggagacgt acgtgcacat tatgcataac 850
 cagaaagagg ctgtcatcct gtacgcgcag cccagcgagc gcagcatcat 900
 gcagagccag agtgtgatgc tggacctggc ctacggggag cgcgtctggg 950
 tgcggctctt caagcgccag cgcgagaacg ccatctacag caacgacttc 1000
 gacacctaca tcaccttcag cggccaacct atcaaggccg aggacgactg 1050
 agggcctctg ggccaccctc ccggctggag agctcagggtg ctggctcccg 1100
 ccctgcagg gctcagtttg cactgctgtg aagcaggaag gccaggggag 1150
 tccccgggga cctggcattc tggggagacc ctgcttctat cttggctgcc 1200
 atcatccctc ccagcctatt tctgctctc tcttctctct tggacctatt 1250
 ttaagaaget tgtaaaccta aatattctag aactttccca gctcgtagc 1300
 ccagcacttc tcaaaccttg aaatgcatgc gaatccccg ggggtcgtgt 1350
 taaatgcaga ttctgactca gcaggtctga gtgggtccag gattctgtgt 1400
 ttctcatatg ttctgggtg atgctgatgg ggctcagtcta tgaaccacac 1450

tggagcaacc aggttctagg acttttctcaa tattctagta ctttctgaac 1500
 atttctggaat cctcccaca ttctagaatt ctcccacat tttttttct 1550
 tgagacagag tcttctctg ttgccaggc tagagtgcag tggtgcaatc 1600
 tcagttcact gcaacctctg cctcccggg tcaagcgatt cttctgcctc 1650
 agcctcccta gtggtggga ttacaggcg ctgctaccat gcctggctaa 1700
 tttttgtatt tttagttag atgggggttc accatattgg ccaggctggt 1750
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 tgggattaca ggtgtgagc accgtgcctg gccaatcca acattcttaa 1850
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<213> Homo sapiens

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<220>

<221> N-glycosylation Site

<222> 72-75

<223> N-glycosylation Site

<220>

<221> Clq Domain Proteins

<222> 144-178, 78-111, 84-117

<223> Clq Domain Proteins

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35 40 45

Pro Leu Asp Pro Ala His Val Ser Ser Ala Ser Ser Ser Gly Arg
50 55 60

Pro His Ala Leu Pro Glu Ile Arg Pro Tyr Ile Asn Ile Thr Ile
65 70 75

Leu Lys Gly Asp Lys Gly Asp Pro Gly Pro Met Gly Leu Pro Gly
80 85 90

Tyr Met Gly Arg Glu Gly Pro Gln Gly Glu Pro Gly Pro Gln Gly
95 100 105

Ser Lys Gly Asp Lys Gly Glu Met Gly Ser Pro Gly Ala Pro Cys
110 115 120

Gln Lys Arg Phe Phe Ala Phe Ser Val Gly Arg Lys Thr Ala Leu
125 130 135

His Ser Gly Glu Asp Phe Gln Thr Leu Leu Phe Glu Arg Val Phe
140 145 150

Val Asn Leu Asp Gly Cys Phe Asp Met Ala Thr Gly Gln Phe Ala
155 160 165

Ala Pro Leu Arg Gly Ile Tyr Phe Phe Ser Leu Asn Val His Ser
170 175 180

Trp Asn Tyr Lys Glu Thr Tyr Val His Ile Met His Asn Gln Lys
185 190 195

Glu Ala Val Ile Leu Tyr Ala Gln Pro Ser Glu Arg Ser Ile Met

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215	220				225
Trp Val Arg Leu Phe Lys Arg Gln Arg	Glu Asn Ala Ile Tyr Ser				
230	235				240
Asn Asp Phe Asp Thr Tyr Ile Thr Phe	Ser Gly His Leu Ile Lys				
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Ala Glu Asp Asp					

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 <223> Synthetic oligonucleotide probe

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 <212> DNA
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<400> 49
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 <211> 673
 <212> PRT
 <213> Homo sapiens

<400> 52
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 35 40 45
 Val Pro Arg Asp Val Pro Pro Asp Thr Val Gly Leu Tyr Val Phe
 50 55 60
 Glu Asn Gly Ile Thr Met Leu Asp Ala Gly Ser Phe Ala Gly Leu
 65 70 75
 Pro Gly Leu Gln Leu Leu Asp Leu Ser Gln Asn Gln Ile Ala Ser
 80 85 90
 Leu Pro Ser Gly Val Phe Gln Pro Leu Ala Asn Leu Ser Asn Leu

95	100	105
Asp Leu Thr Ala	Asn Arg Leu His Glu	Ile Thr Asn Glu Thr Phe
110	115	120
Arg Gly Leu Arg	Arg Leu Glu Arg Leu	Tyr Leu Gly Lys Asn Arg
125	130	135
Ile Arg His Ile	Gln Pro Gly Ala Phe	Asp Thr Leu Asp Arg Leu
140	145	150
Leu Glu Leu Lys	Leu Gln Asp Asn Glu	Leu Arg Ala Leu Pro Pro
155	160	165
Leu Arg Leu Pro	Arg Leu Leu Leu Leu	Asp Leu Ser His Asn Ser
170	175	180
Leu Leu Ala Leu	Glu Pro Gly Ile Leu	Asp Thr Ala Asn Val Glu
185	190	195
Ala Leu Arg Leu	Ala Gly Leu Gly Leu	Gln Gln Leu Asp Glu Gly
200	205	210
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215	220	225
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230	235	240
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245	250	255
Arg Pro Glu Asp	Leu Ala Gly Leu Ala	Ala Leu Gln Glu Leu Asp
260	265	270
Val Ser Asn Leu	Ser Leu Gln Ala Leu	Pro Gly Asp Leu Ser Gly
275	280	285
Leu Phe Pro Arg	Leu Arg Leu Leu Ala	Ala Ala Arg Asn Pro Phe
290	295	300
Asn Cys Val Cys	Pro Leu Ser Trp Phe	Gly Pro Trp Val Arg Glu
305	310	315
Ser His Val Thr	Leu Ala Ser Pro Glu	Glu Thr Arg Cys His Phe
320	325	330
Pro Pro Lys Asn	Ala Gly Arg Leu Leu	Leu Glu Leu Asp Tyr Ala
335	340	345
Asp Phe Gly Cys	Pro Ala Thr Thr Thr	Thr Ala Thr Val Pro Thr
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Thr Arg Pro Val	Val Arg Glu Pro Thr	Ala Leu Ser Ser Ser Leu
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395	400	405
Pro Gln Asp Cys	Pro Pro Ser Thr Cys	Leu Asn Gly Gly Thr Cys

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Phe	Thr	Gly	Leu	Tyr 440	Cys	Glu	Ser	Gln	Met 445	Gly	Gln	Gly	Thr	Arg 450
Pro	Ser	Pro	Thr	Pro 455	Val	Thr	Pro	Arg	Pro 460	Pro	Arg	Ser	Leu	Thr 465
Leu	Gly	Ile	Glu	Pro 470	Val	Ser	Pro	Thr	Ser 475	Leu	Arg	Val	Gly	Leu 480
Gln	Arg	Tyr	Leu	Gln 485	Gly	Ser	Ser	Val	Gln 490	Leu	Arg	Ser	Leu	Arg 495
Leu	Thr	Tyr	Arg	Asn 500	Leu	Ser	Gly	Pro	Asp 505	Lys	Arg	Leu	Val	Thr 510
Leu	Arg	Leu	Pro	Ala 515	Ser	Leu	Ala	Glu	Tyr 520	Thr	Val	Thr	Gln	Leu 525
Arg	Pro	Asn	Ala	Thr 530	Tyr	Ser	Val	Cys	Val 535	Met	Pro	Leu	Gly	Pro 540
Gly	Arg	Val	Pro	Glu 545	Gly	Glu	Glu	Ala	Cys 550	Gly	Glu	Ala	His	Thr 555
Pro	Pro	Ala	Val	His 560	Ser	Asn	His	Ala	Pro 565	Val	Thr	Gln	Ala	Arg 570
Glu	Gly	Asn	Leu	Pro 575	Leu	Leu	Ile	Ala	Pro 580	Ala	Leu	Ala	Ala	Val 585
Leu	Leu	Ala	Ala	Leu 590	Ala	Ala	Val	Gly	Ala 595	Ala	Tyr	Cys	Val	Arg 600
Arg	Gly	Arg	Ala	Met 605	Ala	Ala	Ala	Ala	Gln 610	Asp	Lys	Gly	Gln	Val 615
Gly	Pro	Gly	Ala	Gly 620	Pro	Leu	Glu	Leu	Glu 625	Gly	Val	Lys	Val	Pro 630
Leu	Glu	Pro	Gly	Pro 635	Lys	Ala	Thr	Glu	Gly 640	Gly	Gly	Glu	Ala	Leu 645
Pro	Ser	Gly	Ser	Glu 650	Cys	Glu	Val	Pro	Leu 655	Met	Gly	Phe	Pro	Gly 660
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<211> 23

<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

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<210> 54
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<212> DNA
<213> Artificial Sequence

<220>
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<210> 55
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<223> Synthetic oligonucleotide probe

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<210> 56
<211> 3462
<212> DNA
<213> Homo sapiens

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<211> 811
<212> PRT
<213> Homo sapiens

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35 40 45
Leu Thr Pro Ala Thr Thr Thr Leu Asp Leu Ser Tyr Asn Leu Leu
50 55 60
Phe Gln Leu Gln Ser Ser Asp Phe His Ser Val Ser Lys Leu Arg
65 70 75
Val Leu Ile Leu Cys His Asn Arg Ile Gln Gln Leu Asp Leu Lys
80 85 90

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Asn	Arg	Leu	Lys	Ser	Val	Thr	Trp	Tyr	Leu	Leu	Ala	Gly	Leu	Arg	
				110					115					120	
Tyr	Leu	Asp	Leu	Ser	Phe	Asn	Asp	Phe	Asp	Thr	Met	Pro	Ile	Cys	
				125					130					135	
Glu	Glu	Ala	Gly	Asn	Met	Ser	His	Leu	Glu	Ile	Leu	Gly	Leu	Ser	
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Gly	Ala	Lys	Ile	Gln	Lys	Ser	Asp	Phe	Gln	Lys	Ile	Ala	His	Leu	
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His	Leu	Asn	Thr	Val	Phe	Leu	Gly	Phe	Arg	Thr	Leu	Pro	His	Tyr	
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Glu	Glu	Gly	Ser	Leu	Pro	Ile	Leu	Asn	Thr	Thr	Lys	Leu	His	Ile	
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Val	Leu	Pro	Met	Asp	Thr	Asn	Phe	Trp	Val	Leu	Leu	Arg	Asp	Gly	
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Ile	Lys	Thr	Ser	Lys	Ile	Leu	Glu	Met	Thr	Asn	Ile	Asp	Gly	Lys	
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Asn	Ala	Lys	Thr	Ser	Val	Leu	Leu	Leu	Asn	Lys	Val	Asp	Leu	Leu	
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Trp	Asp	Asp	Leu	Phe	Leu	Ile	Leu	Gln	Phe	Val	Trp	His	Thr	Ser	
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Val	Glu	His	Phe	Gln	Ile	Arg	Asn	Val	Thr	Phe	Gly	Gly	Lys	Ala	
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Tyr	Leu	Asp	His	Asn	Ser	Phe	Asp	Tyr	Ser	Asn	Thr	Val	Met	Arg	
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Thr	Ile	Lys	Leu	Glu	His	Val	His	Phe	Arg	Val	Phe	Tyr	Ile	Gln	
				305					310					315	
Gln	Asp	Lys	Ile	Tyr	Leu	Leu	Leu	Thr	Lys	Met	Asp	Ile	Glu	Asn	
				320					325					330	
Leu	Thr	Ile	Ser	Asn	Ala	Gln	Met	Pro	His	Met	Leu	Phe	Pro	Asn	
				335					340					345	
Tyr	Pro	Thr	Lys	Phe	Gln	Tyr	Leu	Asn	Phe	Ala	Asn	Asn	Ile	Leu	
				350					355					360	
Thr	Asp	Glu	Leu	Phe	Lys	Arg	Thr	Ile	Gln	Leu	Pro	His	Leu	Lys	
				365					370					375	
Thr	Leu	Ile	Leu	Asn	Gly	Asn	Lys	Leu	Glu	Thr	Leu	Ser	Leu	Val	
				380					385					390	
Ser	Cys	Phe	Ala	Asn	Asn	Thr	Pro	Leu	Glu	His	Leu	Asp	Leu	Ser	
				395					400					405	

Gln Asn Leu Leu Gln His Lys Asn Asp	Glu Asn Cys Ser Trp Pro
410	415 420
Glu Thr Val Val Asn Met Asn Leu Ser Tyr Asn Lys Leu Ser Asp	
425	430 435
Ser Val Phe Arg Cys Leu Pro Lys Ser Ile Gln Ile Leu Asp Leu	
440	445 450
Asn Asn Asn Gln Ile Gln Thr Val Pro Lys Glu Thr Ile His Leu	
455	460 465
Met Ala Leu Arg Glu Leu Asn Ile Ala Phe Asn Phe Leu Thr Asp	
470	475 480
Leu Pro Gly Cys Ser His Phe Ser Arg Leu Ser Val Leu Asn Ile	
485	490 495
Glu Met Asn Phe Ile Leu Ser Pro Ser Leu Asp Phe Val Gln Ser	
500	505 510
Cys Gln Glu Val Lys Thr Leu Asn Ala Gly Arg Asn Pro Phe Arg	
515	520 525
Cys Thr Cys Glu Leu Lys Asn Phe Ile Gln Leu Glu Thr Tyr Ser	
530	535 540
Glu Val Met Met Val Gly Trp Ser Asp Ser Tyr Thr Cys Glu Tyr	
545	550 555
Pro Leu Asn Leu Arg Gly Thr Arg Leu Lys Asp Val His Leu His	
560	565 570
Glu Leu Ser Cys Asn Thr Ala Leu Leu Ile Val Thr Ile Val Val	
575	580 585
Ile Met Leu Val Leu Gly Leu Ala Val Ala Phe Cys Cys Leu His	
590	595 600
Phe Asp Leu Pro Trp Tyr Leu Arg Met Leu Gly Gln Cys Thr Gln	
605	610 615
Thr Trp His Arg Val Arg Lys Thr Thr Gln Glu Gln Leu Lys Arg	
620	625 630
Asn Val Arg Phe His Ala Phe Ile Ser Tyr Ser Glu His Asp Ser	
635	640 645
Leu Trp Val Lys Asn Glu Leu Ile Pro Asn Leu Glu Lys Glu Asp	
650	655 660
Gly Ser Ile Leu Ile Cys Leu Tyr Glu Ser Tyr Phe Asp Pro Gly	
665	670 675
Lys Ser Ile Ser Glu Asn Ile Val Ser Phe Ile Glu Lys Ser Tyr	
680	685 690
Lys Ser Ile Phe Val Leu Ser Pro Asn Phe Val Gln Asn Glu Trp	
695	700 705
Cys His Tyr Glu Phe Tyr Phe Ala His His Asn Leu Phe His Glu	
710	715 720

Asn	Ser	Asp	His	Ile	Ile	Leu	Ile	Leu	Leu	Glu	Pro	Ile	Pro	Phe
				725						730				735
Tyr	Cys	Ile	Pro	Thr	Arg	Tyr	His	Lys	Leu	Lys	Ala	Leu	Leu	Glu
				740					745					750
Lys	Lys	Ala	Tyr	Leu	Glu	Trp	Pro	Lys	Asp	Arg	Arg	Lys	Cys	Gly
				755					760					765
Leu	Phe	Trp	Ala	Asn	Leu	Arg	Ala	Ala	Ile	Asn	Val	Asn	Val	Leu
				770					775					780
Ala	Thr	Arg	Glu	Met	Tyr	Glu	Leu	Gln	Thr	Phe	Thr	Glu	Leu	Asn
				785					790					795
Glu	Glu	Ser	Arg	Gly	Ser	Thr	Ile	Ser	Leu	Met	Arg	Thr	Asp	Cys
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Leu

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 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 58
 tcccaccagg tatcataaac tgaa 24

<210> 59
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 59
 ttatagacaa tctgttctca tcagaga 27

<210> 60
 <211> 40
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 60
 aaaaagcata ctgtgaatgg cccaagata ggtgtaaatg 40

<210> 61
 <211> 3772
 <212> DNA
 <213> Homo sapiens

<400> 61
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 cctcgagggg gtcgccggga aaggaggga agaaggagg gcggggccgg 100

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agccagcccc agccccggg gccggtcaca cgcgcagcca gccggccggc 200
tccccggccc aagcgcggc ctctgtgtg ccctgcgccc ttgccccgg 250
ccagcttctg cgcgcgcgc cgcggcggg ccccggtga ccgtgacct 300
gccctggggc cggggcgagg caggcatgtc ccgccccgg accgctaccc 350
cagcgctggc cctgtgtct ctggcagtga ccctggccgg ggtcggagcc 400
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cggggagccc tactacgcgc gcccgagacc cgagctogag acctctctc 500
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 aaaaaaaaaa aaaaaaaaaa aa 3772

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 <211> 756
 <212> PRT
 <213> Homo sapiens
 <400> 62
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 Glu Asp Pro Asp Tyr Tyr Gly Gln Glu Ile Trp Ser Arg Glu Pro
 35 40 45
 Tyr Tyr Ala Arg Pro Glu Pro Glu Leu Glu Thr Phe Ser Pro Pro
 50 55 60
 Leu Pro Ala Gly Pro Gly Glu Glu Trp Glu Arg Arg Pro Gln Glu
 65 70 75
 Pro Arg Pro Pro Lys Arg Ala Thr Lys Pro Lys Lys Ala Pro Lys
 80 85 90
 Arg Glu Lys Ser Ala Pro Glu Pro Pro Pro Gly Lys His Ser
 95 100 105
 Asn Lys Lys Val Met Arg Thr Lys Ser Ser Glu Lys Ala Ala Asn
 110 115 120
 Asp Asp His Ser Val Arg Val Ala Arg Glu Asp Val Arg Glu Ser
 125 130 135
 Cys Pro Pro Leu Gly Leu Glu Thr Leu Lys Ile Thr Asp Phe Gln
 140 145 150
 Leu His Ala Ser Thr Val Lys Arg Tyr Gly Leu Gly Ala His Arg
 155 160 165
 Gly Arg Leu Asn Ile Gln Ala Gly Ile Asn Glu Asn Asp Phe Tyr
 170 175 180
 Asp Gly Ala Trp Cys Ala Gly Arg Asn Asp Leu Gln Gln Trp Ile

	185		190		195
Glu Val Asp Ala	Arg Arg Leu Thr Arg	Phe Thr Gly Val Ile Thr			
	200		205		210
Gln Gly Arg Asn Ser	Leu Trp Leu Ser	Asp Trp Val Thr Ser Tyr			
	215		220		225
Lys Val Met Val Ser	Asn Asp Ser His	Thr Trp Val Thr Val Lys			
	230		235		240
Asn Gly Ser Gly Asp	Met Ile Phe Glu	Gly Asn Ser Glu Lys Glu			
	245		250		255
Ile Pro Val Leu Asn	Glu Leu Pro Val	Pro Met Val Ala Arg Tyr			
	260		265		270
Ile Arg Ile Asn Pro	Gln Ser Trp Phe	Asp Asn Gly Ser Ile Cys			
	275		280		285
Met Arg Met Glu Ile	Leu Gly Cys Pro	Leu Pro Asp Pro Asn Asn			
	290		295		300
Tyr Tyr His Arg Arg	Asn Glu Met Thr	Thr Thr Asp Asp Leu Asp			
	305		310		315
Phe Lys His His Asn	Tyr Lys Glu Met	Arg Gln Leu Met Lys Val			
	320		325		330
Val Asn Glu Met Cys	Pro Asn Ile Thr	Arg Ile Tyr Asn Ile Gly			
	335		340		345
Lys Ser His Gln Gly	Leu Lys Leu Tyr	Ala Val Glu Ile Ser Asp			
	350		355		360
His Pro Gly Glu His	Glu Val Gly Glu	Pro Glu Phe His Tyr Ile			
	365		370		375
Ala Gly Ala His Gly	Asn Glu Val Leu	Gly Arg Glu Leu Leu Leu			
	380		385		390
Leu Leu Val Gln Phe	Val Cys Gln Glu	Tyr Leu Ala Arg Asn Ala			
	395		400		405
Arg Ile Val His Leu	Val Glu Glu Thr	Arg Ile His Val Leu Pro			
	410		415		420
Ser Leu Asn Pro Asp	Gly Tyr Glu Lys	Ala Tyr Glu Gly Gly Ser			
	425		430		435
Glu Leu Gly Gly Trp	Ser Leu Gly Arg	Trp Thr His Asp Gly Ile			
	440		445		450
Asp Ile Asn Asn Asn	Phe Pro Asp Leu	Asn Thr Leu Leu Trp Glu			
	455		460		465
Ala Glu Asp Arg Gln	Asn Val Pro Arg	Lys Val Pro Asn His Tyr			
	470		475		480
Ile Ala Ile Pro Glu	Trp Phe Leu Ser	Glu Asn Ala Thr Val Ala			
	485		490		495
Ala Glu Thr Arg Ala	Val Ile Ala Trp	Met Glu Lys Ile Pro Phe			

	500		505		510
Val Leu Gly Gly Asn	Leu Gln Gly Gly	Glu	Leu Val Val Ala Tyr		
515		520		525	
Pro Tyr Asp Leu Val Arg Ser Pro Trp	Lys Thr Gln Glu His Thr				
530		535		540	
Pro Thr Pro Asp Asp His Val Phe Arg	Trp Leu Ala Tyr Ser				
545		550		555	
Ala Ser Thr His Arg Leu Met Thr Asp	Ala Arg Arg Arg Val Cys				
560		565		570	
His Thr Glu Asp Phe Gln Lys Glu Glu	Gly Thr Val Asn Gly Ala				
575		580		585	
Ser Trp His Thr Val Ala Gly Ser Leu	Asn Asp Phe Ser Tyr Leu				
590		595		600	
His Thr Asn Cys Phe Glu Leu Ser Ile	Tyr Val Gly Cys Asp Lys				
605		610		615	
Tyr Pro His Glu Ser Gln Leu Pro Glu	Glu Trp Glu Asn Asn Arg				
620		625		630	
Glu Ser Leu Ile Val Phe Met Glu Gln	Val His Arg Gly Ile Lys				
635		640		645	
Gly Leu Val Arg Asp Ser His Gly Lys	Gly Ile Pro Asn Ala Ile				
650		655		660	
Ile Ser Val Glu Gly Ile Asn His Asp	Ile Arg Thr Ala Asn Asp				
665		670		675	
Gly Asp Tyr Trp Arg Leu Leu Asn Pro	Gly Glu Tyr Val Val Thr				
680		685		690	
Ala Lys Ala Glu Gly Phe Thr Ala Ser	Thr Lys Asn Cys Met Val				
695		700		705	
Gly Tyr Asp Met Gly Ala Thr Arg Cys	Asp Phe Thr Leu Ser Lys				
710		715		720	
Thr Asn Met Ala Arg Ile Arg Glu Ile	Met Glu Lys Phe Gly Lys				
725		730		735	
Gln Pro Val Ser Leu Pro Ala Arg Arg	Leu Lys Leu Arg Gly Arg				
740		745		750	
Lys Arg Arg Gln Arg Gly					
755					

<210> 63

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 63

gtttctcaatg agctaccggt cccc 24

<210> 64
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 64
cgcatgtag tggaactcgg gctc 24

<210> 65
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 65
atccgcataa accctcagtc ctggtttgat aatgggagca tctgcatgag 50

<210> 66
<211> 2854
<212> DNA
<213> Homo sapiens

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cccagccccg gcttcagctc tttcccaggt gttgactcca gctccagcct 150
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aaaa 2854

<210> 67
<211> 510
<212> PRT
<213> Homo sapiens

<400> 67
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20 25 30
Ser Pro Gly Phe Ser Ser Phe Pro Gly Val Asp Ser Ser Ser Ser
35 40 45
Phe Ser Ser Ser Ser Arg Ser Gly Ser Ser Ser Ser Arg Ser Leu
50 55 60
Gly Ser Gly Gly Ser Val Ser Gln Leu Phe Ser Asn Phe Thr Gly
65 70 75
Ser Val Asp Asp Arg Gly Thr Cys Gln Cys Ser Val Ser Leu Pro
80 85 90
Asp Thr Thr Phe Pro Val Asp Arg Val Glu Arg Leu Glu Phe Thr
95 100 105
Ala His Val Leu Ser Gln Lys Phe Glu Lys Glu Leu Ser Lys Val
110 115 120
Arg Glu Tyr Val Gln Leu Ile Ser Val Tyr Glu Lys Lys Leu Leu
125 130 135
Asn Leu Thr Val Arg Ile Asp Ile Met Glu Lys Asp Thr Ile Ser
140 145 150
Tyr Thr Glu Leu Asp Phe Glu Leu Ile Lys Val Glu Val Lys Glu
155 160 165
Met Glu Lys Leu Val Ile Gln Leu Lys Glu Ser Phe Gly Gly Ser
170 175 180
Ser Glu Ile Val Asp Gln Leu Glu Val Glu Ile Arg Asn Met Thr
185 190 195
Leu Leu Val Glu Lys Leu Glu Thr Leu Asp Lys Asn Asn Val Leu
200 205 210

<213> Homo sapiens

<220>

<221> unsure

<222> 206, 217, 387

<223> unknown base

<400> 68

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 aaaggnatgt attgggnggc gccattgaat acagatggga gactgttgga 250
 gtattataga ctgtacaacc cactggatga ttgtctattg tatataaatg 300
 ctcgagagtt gcggatcacc tatggccaag gtagtggtac agcagtttac 350
 aacaacaaca tgtacgtcaa catgtacaac accgggnata ttgccagagt 400
 taacctgacc 410

<210> 69

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 69

agctgtggtc atggtgtgtg ggtg 24

<210> 70

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 70

ctacctgggc cataggtgat ccgc 24

<210> 71

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 71

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<210> 72

<211> 3127

<212> DNA

<213> Homo sapiens

<400> 72

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<210> 73
 <211> 453
 <212> PRT
 <213> Homo sapiens

<400> 73

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Ser	Gly	Asn	Asn	Ser	Thr	Val	Thr	Arg	Leu	Ile	Tyr	Ala	Leu	Phe
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Leu	Leu	Val	Gly	Val	Cys	Val	Ala	Cys	Val	Met	Leu	Ile	Pro	Gly
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Met	Glu	Glu	Gln	Leu	Asn	Lys	Ile	Pro	Gly	Phe	Cys	Glu	Asn	Glu
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Lys	Gly	Val	Val	Pro	Cys	Asn	Ile	Leu	Val	Gly	Tyr	Lys	Ala	Val
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Tyr	Arg	Leu	Cys	Phe	Gly	Leu	Ala	Met	Phe	Tyr	Leu	Leu	Leu	Ser
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Leu	Leu	Met	Ile	Lys	Val	Lys	Ser	Ser	Ser	Asp	Pro	Arg	Ala	Ala
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Val	His	Asn	Gly	Phe	Trp	Phe	Phe	Lys	Phe	Ala	Ala	Ala	Ile	Ala
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Ile	Ile	Ile	Gly	Ala	Phe	Phe	Ile	Pro	Glu	Gly	Thr	Phe	Thr	Thr
				140					145					150
Val	Trp	Phe	Tyr	Val	Gly	Met	Ala	Gly	Ala	Phe	Cys	Phe	Ile	Leu
				155					160					165
Ile	Gln	Leu	Val	Leu	Leu	Ile	Asp	Phe	Ala	His	Ser	Trp	Asn	Glu
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Ser	Trp	Val	Glu	Lys	Met	Glu	Glu	Gly	Asn	Ser	Arg	Cys	Trp	Tyr
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Ala	Ala	Leu	Leu	Ser	Ala	Thr	Ala	Leu	Asn	Tyr	Leu	Leu	Ser	Leu
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Val	Ala	Ile	Val	Leu	Phe	Phe	Val	Tyr	Tyr	Thr	His	Pro	Ala	Ser
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Cys	Ser	Glu	Asn	Lys	Ala	Phe	Ile	Ser	Val	Asn	Met	Leu	Leu	Cys
				230					235					240
Val	Gly	Ala	Ser	Val	Met	Ser	Ile	Leu	Pro	Lys	Ile	Gln	Glu	Ser
				245					250					255
Gln	Pro	Arg	Ser	Gly	Leu	Leu	Gln	Ser	Ser	Val	Ile	Thr	Val	Tyr
				260					265					270
Thr	Met	Tyr	Leu	Thr	Trp	Ser	Ala	Met	Thr	Asn	Glu	Pro	Glu	Thr
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Asn	Cys	Asn	Pro	Ser	Leu	Leu	Ser	Ile	Ile	Gly	Tyr	Asn	Thr	Thr	
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Ser	Thr	Val	Pro	Lys	Glu	Gly	Gln	Ser	Val	Gln	Trp	Trp	His	Ala	
				305					310					315	
Gln	Gly	Ile	Ile	Gly	Leu	Ile	Leu	Phe	Leu	Leu	Cys	Val	Phe	Thr	
				320					325					330	
Ser	Ser	Ile	Arg	Thr	Ser	Asn	Asn	Ser	Gln	Val	Asn	Lys	Leu	Thr	
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Leu	Thr	Ser	Asp	Glu	Ser	Thr	Leu	Ile	Glu	Asp	Gly	Gly	Ala	Arg	
				350					355					360	
Ser	Asp	Gly	Ser	Leu	Glu	Asp	Gly	Asp	Asp	Val	His	Arg	Ala	Val	
				365					370					375	
Asp	Asn	Glu	Arg	Asp	Gly	Val	Thr	Tyr	Ser	Tyr	Ser	Phe	Phe	His	
				380					385					390	
Phe	Met	Leu	Phe	Leu	Ala	Ser	Leu	Tyr	Ile	Met	Met	Thr	Leu	Thr	
				395					400					405	
Asn	Trp	Ser	Arg	Tyr	Glu	Pro	Ser	Arg	Glu	Met	Lys	Ser	Gln	Trp	
				410					415					420	
Thr	Ala	Val	Trp	Val	Lys	Ile	Ser	Ser	Ser	Trp	Ile	Gly	Ile	Val	
				425					430					435	
Leu	Tyr	Val	Trp	Thr	Leu	Val	Ala	Pro	Leu	Val	Leu	Thr	Asn	Arg	
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Asp	Phe	Asp													

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 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 48, 163
 <223> unknown base

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 ataccatgtt tgtgtggaag tgccccgtgt ttgctatgcc gatgtgtgcc 150
 tagtggaac aantccactg taactagatt gatctatgca cttttcttgc 200
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 ttgtaacatt ttggttggt ataaagctgt atatogtttg tgctttgttt 350
 tggctatgtt ctatcttctt ctctctttac taatgatcaa agtgaagagt 400

agcagtgatc ctagagctgc agtgcacaat ggatttttgg tcttttaaatt 450

tgctgcagca attgcaatta ttattggggc 480

<210> 75
 <211> 438
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 32, 65, 92, 121, 142, 154, 170, 293, 315, 323
 <223> unknown base

<400> 75
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 tttnttgctt gttggagtan gtgtagcttg tgtaatgttg ataccaggaa 200
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 tttaaatttg ctgcagcaat tgcaattatt attggggc 438

<210> 76
 <211> 473
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 48
 <223> unknown base

<400> 76
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 gttctatctt cttctctctt tactaatgat caaagtgaag agtagcagtg 400
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<210> 77
<211> 666
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 21, 111
<223> unknown base

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<210> 78
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 78
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<210> 79
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 79
gtcaacatgc tctctctgc 18

<210> 80
<211> 26

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 80
 aatccattgt gcactgcagc tctagg 26

 <210> 81
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 81
 gagcatgccca ccactgggact gac 23

 <210> 82
 <211> 54
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

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 gcac 54

 <210> 83
 <211> 3906
 <212> DNA
 <213> Homo sapiens

 <400> 83
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<210> 84
 <211> 867
 <212> PRT
 <213> Homo sapiens

<400> 84
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 Leu Lys Gly Arg Phe Gln Arg Asp Arg Arg Asn Ile Arg Pro Asn
 35 40 45
 Ile Ile Leu Val Leu Thr Asp Asp Gln Asp Val Glu Leu Gly Ser
 50 55 60
 Met Gln Val Met Asn Lys Thr Arg Arg Ile Met Glu Gln Gly Gly
 65 70 75
 Ala His Phe Ile Asn Ala Phe Val Thr Thr Pro Met Cys Cys Pro
 80 85 90
 Ser Arg Ser Ser Ile Leu Thr Gly Lys Tyr Val His Asn His Asn
 95 100 105
 Thr Tyr Thr Asn Asn Glu Asn Cys Ser Ser Pro Ser Trp Gln Ala
 110 115 120
 Gln His Glu Ser Arg Thr Phe Ala Val Tyr Leu Asn Ser Thr Gly
 125 130 135
 Tyr Arg Thr Ala Phe Phe Gly Lys Tyr Leu Asn Glu Tyr Asn Gly
 140 145 150
 Ser Tyr Val Pro Pro Gly Trp Lys Glu Trp Val Gly Leu Leu Lys
 155 160 165
 Asn Ser Arg Phe Tyr Asn Tyr Thr Leu Cys Arg Asn Gly Val Lys
 170 175 180
 Glu Lys His Gly Ser Asp Tyr Ser Lys Asp Tyr Leu Thr Asp Leu
 185 190 195
 Ile Thr Asn Asp Ser Val Ser Phe Phe Arg Thr Ser Lys Lys Met
 200 205 210
 Tyr Pro His Arg Pro Val Leu Met Val Ile Ser His Ala Ala Pro
 215 220 225
 His Gly Pro Glu Asp Ser Ala Pro Gln Tyr Ser Arg Leu Phe Pro
 230 235 240
 Asn Ala Ser Gln His Ile Thr Pro Ser Tyr Asn Tyr Ala Pro Asn
 245 250 255

Pro	Asp	Lys	His	Trp	Ile	Met	Arg	Tyr	Thr	Gly	Pro	Met	Lys	Pro	260	270
Ile	His	Met	Glu	Phe	Thr	Asn	Met	Leu	Gln	Arg	Lys	Arg	Leu	Gln	275	285
Thr	Leu	Met	Ser	Val	Asp	Asp	Ser	Met	Glu	Thr	Ile	Tyr	Asn	Met	290	300
Leu	Val	Glu	Thr	Gly	Glu	Leu	Asp	Asn	Thr	Tyr	Ile	Val	Tyr	Thr	305	315
Ala	Asp	His	Gly	Tyr	His	Ile	Gly	Gln	Phe	Gly	Leu	Val	Lys	Gly	320	330
Lys	Ser	Met	Pro	Tyr	Glu	Phe	Asp	Ile	Arg	Val	Pro	Phe	Tyr	Val	335	345
Arg	Gly	Pro	Asn	Val	Glu	Ala	Gly	Cys	Leu	Asn	Pro	His	Ile	Val	350	360
Leu	Asn	Ile	Asp	Leu	Ala	Pro	Thr	Ile	Leu	Asp	Ile	Ala	Gly	Leu	365	375
Asp	Ile	Pro	Ala	Asp	Met	Asp	Gly	Lys	Ser	Ile	Leu	Lys	Leu	Leu	380	390
Asp	Thr	Glu	Arg	Pro	Val	Asn	Arg	Phe	His	Leu	Lys	Lys	Lys	Met	395	405
Arg	Val	Trp	Arg	Asp	Ser	Phe	Leu	Val	Glu	Arg	Gly	Lys	Leu	Leu	410	420
His	Lys	Arg	Asp	Asn	Asp	Lys	Val	Asp	Ala	Gln	Glu	Glu	Asn	Phe	425	435
Leu	Pro	Lys	Tyr	Gln	Arg	Val	Lys	Asp	Leu	Cys	Gln	Arg	Ala	Glu	440	450
Tyr	Gln	Thr	Ala	Cys	Glu	Gln	Leu	Gly	Gln	Lys	Trp	Gln	Cys	Val	455	465
Glu	Asp	Ala	Thr	Gly	Lys	Leu	Lys	Leu	His	Lys	Cys	Lys	Gly	Pro	470	480
Met	Arg	Leu	Gly	Gly	Ser	Arg	Ala	Leu	Ser	Asn	Leu	Val	Pro	Lys	485	495
Tyr	Tyr	Gly	Gln	Gly	Ser	Glu	Ala	Cys	Thr	Cys	Asp	Ser	Gly	Asp	500	510
Tyr	Lys	Leu	Ser	Leu	Ala	Gly	Arg	Arg	Lys	Lys	Leu	Phe	Lys	Lys	515	525
Lys	Tyr	Lys	Ala	Ser	Tyr	Val	Arg	Ser	Arg	Ser	Ile	Arg	Ser	Val	530	540
Ala	Ile	Glu	Val	Asp	Gly	Arg	Val	Tyr	His	Val	Gly	Leu	Gly	Asp	545	555
Ala	Ala	Gln	Pro	Arg	Asn	Leu	Thr	Lys	Arg	His	Trp	Pro	Gly	Ala	560	570

Pro	Glu	Asp	Gln	Asp	Asp	Lys	Asp	Gly	Gly	Asp	Phe	Ser	Gly	Thr		575	580	585
Gly	Gly	Leu	Pro	Asp	Tyr	Ser	Ala	Ala	Asn	Pro	Ile	Lys	Val	Thr		590	595	600
His	Arg	Cys	Tyr	Ile	Leu	Glu	Asn	Asp	Thr	Val	Gln	Cys	Asp	Leu		605	610	615
Asp	Leu	Tyr	Lys	Ser	Leu	Gln	Ala	Trp	Lys	Asp	His	Lys	Leu	His		620	625	630
Ile	Asp	His	Glu	Ile	Glu	Thr	Leu	Gln	Asn	Lys	Ile	Lys	Asn	Leu		635	640	645
Arg	Glu	Val	Arg	Gly	His	Leu	Lys	Lys	Lys	Arg	Pro	Glu	Glu	Cys		650	655	660
Asp	Cys	His	Lys	Ile	Ser	Tyr	His	Thr	Gln	His	Lys	Gly	Arg	Leu		665	670	675
Lys	His	Arg	Gly	Ser	Ser	Leu	His	Pro	Phe	Arg	Lys	Gly	Leu	Gln		680	685	690
Glu	Lys	Asp	Lys	Val	Trp	Leu	Leu	Arg	Glu	Gln	Lys	Arg	Lys	Lys		695	700	705
Lys	Leu	Arg	Lys	Leu	Leu	Lys	Arg	Leu	Gln	Asn	Asn	Asp	Thr	Cys		710	715	720
Ser	Met	Pro	Gly	Leu	Thr	Cys	Phe	Thr	His	Asp	Asn	Gln	His	Trp		725	730	735
Gln	Thr	Ala	Pro	Phe	Trp	Thr	Leu	Gly	Pro	Phe	Cys	Ala	Cys	Thr		740	745	750
Ser	Ala	Asn	Asn	Asn	Thr	Tyr	Trp	Cys	Met	Arg	Thr	Ile	Asn	Glu		755	760	765
Thr	His	Asn	Phe	Leu	Phe	Cys	Glu	Phe	Ala	Thr	Gly	Phe	Leu	Glu		770	775	780
Tyr	Phe	Asp	Leu	Asn	Thr	Asp	Pro	Tyr	Gln	Leu	Met	Asn	Ala	Val		785	790	795
Asn	Thr	Leu	Asp	Arg	Asp	Val	Leu	Asn	Gln	Leu	His	Val	Gln	Leu		800	805	810
Met	Glu	Leu	Arg	Ser	Cys	Lys	Gly	Tyr	Lys	Gln	Cys	Asn	Pro	Arg		815	820	825
Thr	Arg	Asn	Met	Asp	Leu	Asp	Gly	Gly	Ser	Tyr	Glu	Gln	Tyr	Arg		830	835	840
Gln	Phe	Gln	Arg	Arg	Lys	Trp	Pro	Glu	Met	Lys	Arg	Pro	Ser	Ser		845	850	855
Lys	Ser	Leu	Gly	Gln	Leu	Trp	Glu	Gly	Trp	Glu	Gly					860	865	

<210> 85

<211> 19

<212> DNA

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<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 85
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<210> 86
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 86
ggccagctat ctccgag 18

<210> 87
<211> 18
<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 87
aagggcctgc aagagaag 18

<210> 88
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 88
cactgggaca actgtggg 18

<210> 89
<211> 18
<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 89
cagaggcaac gtggagag 18

<210> 90
<211> 21
<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 90
aagtattgtc atacagtgtt c 21

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<210> 91
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 91
tagtacttgg gcacgaggtt ggag 24

<210> 92
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 92
tcataccaac tgtcgtgtcat tggc 24

<210> 93
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 93
ctcaagctgc tggacacgga gcggccggtg aatcggttcc acttg 45

<210> 94
<211> 971
<212> DNA
<213> Homo sapiens

<400> 94
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gtggcgggtc tctgctgctg gctgctgctg gccacctgcc ttttccacgg 200
acggcaggac tgtgacgtgg agaggaaccg tacagctgca gggggaaacc 250
gagtcgcgcg ggcccagcct tggcccttcc ggcggcgggg ccacctggga 300
atctttcacc atcaccgtoa tcttggoaac gtatctcatg tgccgaatgt 350
gggcctocac caccaccacc acccccgoca caccctcacc cacctccacc 400
accaccacca cccccaccgc caccatcccc gccacgctcg ctgaggctgc 450
tgtgcgcggt gcctgtggac agcagctgcc cctgccctcc catctgttcc 500
caggacaagt ggaccccatg tttccatgtg gaaggatgca tctctggggg 550
gaacgagggg aacaatagac tggggcttgc tccagctgca tttcatggc 600

atgccccagt gtactatggc agcagagaat ggaggaacac tgggtctgca 650
 gtgtgtaagg gtttggggag tggagagcaa ggggtgctctt tcggggctgg 700
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 gtgtcttggc agagccagca cacaagtgga tgtgaagtgc ccgtcttgac 800
 ctctcatca ggctgctgca ggctctggc gggcagggca ctgggagag 850
 ccctgagaat gtccctttgg ttggagaag gcagtgtgag gctgcacagt 900
 caattcatcg gtgccttagt ccaagaaaat aaaaaccact aagaagcttt 950
 aaaaaaaaaa aaaaaaaaaa a 971

<210> 95

<211> 115

<212> PRT

<213> Homo sapiens

<400> 95

Met	Leu	Gly	Leu	Leu	Gly	Ser	Thr	Ala	Leu	Val	Gly	Trp	Ile	Thr
1				5					10				15	
Gly	Ala	Ala	Val	Ala	Val	Leu	Leu	Leu	Leu	Leu	Leu	Ala	Thr	
			20						25				30	
Cys	Leu	Phe	His	Gly	Arg	Gln	Asp	Cys	Asp	Val	Glu	Arg	Asn	Arg
				35					40				45	
Thr	Ala	Ala	Gly	Gly	Asn	Arg	Val	Arg	Arg	Ala	Gln	Pro	Trp	Pro
				50					55				60	
Phe	Arg	Arg	Arg	Gly	His	Leu	Gly	Ile	Phe	His	His	His	Arg	His
				65					70				75	
Pro	Gly	His	Val	Ser	His	Val	Pro	Asn	Val	Gly	Leu	His	His	His
				80					85				90	
His	His	Pro	Arg	His	Thr	Pro	His	His	Leu	His	His	His	His	His
				95					100				105	
Pro	His	Arg	His	His	Pro	Arg	His	Ala	Arg					
				110					115					

<210> 96

<211> 1312

<212> DNA

<213> Homo sapiens

<400> 96

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 tcggacctgc tactactggg octgattggg ggccctgaatc tottactgct 100
 gctgacgctg ctggcctttg ccgggtactc agggctactg gctgggggtg 150
 aagtgagtgc tgggtcacc cccatccgca acgtcactgt ggctacaag 200
 ttccacatgg ggctctatgg tgagactggg cggttttca ctgagagctg 250
 cagcatctct cccaagctcc gctccatcgc tgtctactat gacaaccccc 300

acatggtgcc ccctgataag tgccgatgtg ccgtgggcag catcctgagt 350
 gaaggtgagg aatgcgcctc ccctgagctc atcgacctct accagaaatt 400
 tggcttcaag gtgttctcct tcccggcacc cagccatgtg gtgacagcca 450
 ccttcccta caccaccatt ctgtccatct ggctggctac ccgccgtgtc 500
 catcctgcct tggacaccta catcaaggag cgggaagctgt gtgcctatcc 550
 tcggctggag atctaccagg aagaccagat ccatttcatg tgccactggg 600
 caccgcaggg agacttctat gtgcctgaga tgaaggagac agagtggaaa 650
 tggcgggggc ttgtggaggc cattgacacc caggtggatg gcacaggagc 700
 tgacacaatg agtgacacga gttctgtaag cttggaagtg agccctggca 750
 gccgggagac ttcagctgcc aactgtcac ctggggcgag cagccgtggc 800
 tgggatgacg gtgacacccg cagcgagcac agctacagcg agtcagggtc 850
 cagcggctcc tcttttgagg agctggactt ggagggcgag gggcccttag 900
 gggagtcaag gctggacctt gggactgagc ccctggggac taccaagtgg 950
 ctctgggagc ccactgcccc tgagaagggc aaggagtaac ccattggcctg 1000
 caccctctg cagtgcagtt gctgaggaac tgagcagact ctccagcaga 1050
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 acctgacttc ccctgctcca ggcccttgc taagccttct cctcactgcc 1150
 ctttaggctc ccagggccag aggagccagg gactattttc tgcaccagcc 1200
 cccagggtcg ccgcccctgt tgtgtctttt ttccagactc acagtggagc 1250
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 aaaaaaaaaa aa 1312

<210> 97
 <211> 313
 <212> PRT
 <213> Homo sapiens

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 20 25 30
 Leu Ala Gly Val Glu Val Ser Ala Gly Ser Pro Pro Ile Arg Asn
 35 40 45
 Val Thr Val Ala Tyr Lys Phe His Met Gly Leu Tyr Gly Glu Thr
 50 55 60
 Gly Arg Leu Phe Thr Glu Ser Cys Ser Ile Ser Pro Lys Leu Arg
 65 70 75

Ser Ile Ala Val Tyr Tyr Asp Asn Pro His Met Val Pro Pro Asp
 80 85 90
 Lys Cys Arg Cys Ala Val Gly Ser Ile Leu Ser Glu Gly Glu Glu
 95 100 105
 Ser Pro Ser Pro Glu Leu Ile Asp Leu Tyr Gln Lys Phe Gly Phe
 110 115 120
 Lys Val Phe Ser Phe Pro Ala Pro Ser His Val Val Thr Ala Thr
 125 130 135
 Phe Pro Tyr Thr Thr Ile Leu Ser Ile Trp Leu Ala Thr Arg Arg
 140 145 150
 Val His Pro Ala Leu Asp Thr Tyr Ile Lys Glu Arg Lys Leu Cys
 155 160 165
 Ala Tyr Pro Arg Leu Glu Ile Tyr Gln Glu Asp Gln Ile His Phe
 170 175 180
 Met Cys Pro Leu Ala Arg Gln Gly Asp Phe Tyr Val Pro Glu Met
 185 190 195
 Lys Glu Thr Glu Trp Lys Trp Arg Gly Leu Val Glu Ala Ile Asp
 200 205 210
 Thr Gln Val Asp Gly Thr Gly Ala Asp Thr Met Ser Asp Thr Ser
 215 220 225
 Ser Val Ser Leu Glu Val Ser Pro Gly Ser Arg Glu Thr Ser Ala
 230 235 240
 Ala Thr Leu Ser Pro Gly Ala Ser Ser Arg Gly Trp Asp Asp Gly
 245 250 255
 Asp Thr Arg Ser Glu His Ser Tyr Ser Glu Ser Gly Ala Ser Gly
 260 265 270
 Ser Ser Phe Glu Glu Leu Asp Leu Glu Gly Glu Gly Pro Leu Gly
 275 280 285
 Glu Ser Arg Leu Asp Pro Gly Thr Glu Pro Leu Gly Thr Thr Lys
 290 295 300
 Trp Leu Trp Glu Pro Thr Ala Pro Glu Lys Gly Lys Glu
 305 310

<210> 98
 <211> 725
 <212> DNA
 <213> Homo sapiens

<400> 98
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 cccgctccat ctgctgctgc tgctgctgct cagtgcggcg gtgtgccggg 150
 ctgaggtggt gctcgaaacc gaaagtcctg tccggacctt ccaagtggag 200
 accctggtgg agccccaga accatgtgcc gagcccgctg cttttggaga 250

cacgcttcac atacactaca cggaagcctt ggtagatgga cgtattattg 300
 acacctccct gaccagagac cctctggtta tagaacttgg ccaaaagcag 350
 gtgattccag gtctggagca gagtcttctc gacatgtgtg tgggagagaa 400
 ggaagggca atcattcctt ctcaettggc ctatggaaaa cggggatttc 450
 caccatctgt cccagcggat gcagtgggtc agtatgacgt ggagctgatt 500
 gcaactaatc gagccaacta ctggctaaag ctggtgaagg gcattttgcc 550
 tctggtaggg atggccatgg tgccagccct cctgggcctc attgggtatc 600
 acctatacag aaaggccaat agaccctaaag tctccaaaaa gaagctcaag 650
 gaagagaaac gaaacaagag caaaaagaaa taataaataa taaattttaa 700
 aaaacttaaa aaaaaaaaaa aaaaa 725

<210> 99
 <211> 201
 <212> PRT
 <213> Homo sapiens

<400> 99
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 Leu Leu Leu Ser Ala Ala Val Cys Arg Ala Glu Ala Gly Leu Glu
 20 25 30
 Thr Glu Ser Pro Val Arg Thr Leu Gln Val Glu Thr Leu Val Glu
 35 40 45
 Pro Pro Glu Pro Cys Ala Glu Pro Ala Ala Phe Gly Asp Thr Leu
 50 55 60
 His Ile His Tyr Thr Gly Ser Leu Val Asp Gly Arg Ile Ile Asp
 65 70 75
 Thr Ser Leu Thr Arg Asp Pro Leu Val Ile Glu Leu Gly Gln Lys
 80 85 90
 Gln Val Ile Pro Gly Leu Glu Gln Ser Leu Leu Asp Met Cys Val
 95 100 105
 Gly Glu Lys Arg Arg Ala Ile Ile Pro Ser His Leu Ala Tyr Gly
 110 115 120
 Lys Arg Gly Phe Pro Pro Ser Val Pro Ala Asp Ala Val Val Gln
 125 130 135
 Tyr Asp Val Glu Leu Ile Ala Leu Ile Arg Ala Asn Tyr Trp Leu
 140 145 150
 Lys Leu Val Lys Gly Ile Leu Pro Leu Val Gly Met Ala Met Val
 155 160 165
 Pro Ala Leu Leu Gly Leu Ile Gly Tyr His Leu Tyr Arg Lys Ala
 170 175 180
 Asn Arg Pro Lys Val Ser Lys Lys Lys Lys Lys Glu Glu Lys Arg

Asn Lys Ser Lys Lys Lys
200

<210> 100
<211> 705
<212> DNA
<213> Homo sapiens

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cgctccatct gctgctgctg ctgctgctca gtgcggcggg gtgcggggt 150
gaggctgggc tggaaaccga aagtcccgtc cggaccctcc aagtggagac 200
cctggtggag cccccagaac catgtgccga gcccgctgct ttggagaga 250
cgcttcacat aactacacag ggaagcttg tagatggagc tattattgac 300
acctccctga ccagagaccc tctggtata gaacttgccc aaaagcaggt 350
gattccaggt ctggagcaga gtcttctcga catgtgtgtg ggagagaagc 400
gaaggccaat cattccttct cacttggcct atggaagacg gggatttcca 450
ccatctgtcc cagcggatgc agtggtgcag tatgacgtg agctgattgc 500
actaatccga gccaaactact ggctaaagct ggtgaagggc attttgcctc 550
tggtagggat ggccatggtg ccacctcct gggcctcatt gggatcaccc 600
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gagaaacgaa acaagagcaa aaagaaataa taataataa attttaaaaa 700
actta 705

<210> 101
<211> 543
<212> DNA
<213> Homo sapiens

<400> 101
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gaaccatgtg ccgagcccgc tgcttttggg gacacgcttc acatacacta 100
cacgggaagc ttggtagatg gacgtattat tgacacctcc ctgaccagag 150
acctctgtgt tatagaactt ggccaaaaagc aggtgattcc aggtctggag 200
cagagctctc tcgacatgtg tgtgggagag aagcgaaggc caatcattcc 250
ttctcacttg gcctatggaa aacggggatt tccaccatct gtcccagcg 300
atgcagtggt gcagtatgac gtggagctga ttgcactaat ccgagccaac 350
tactggccta agctggtgaa gggcattttg cctctggtag gtagggccat 400

ggtgccagcc ctcttgggcc tcattgggta tcacctatac agaaaggcca 450
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 agcaaaaaga aataataaat aataaat tttt aaaaaactta aaa 543

<210> 102
 <211> 1316
 <212> DNA
 <213> Homo sapiens

<400> 102
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 ccaatgcacg acggggcttg actgacctga aaaaaatgct tggattttcta 150
 gagggcttga gatgctcaga atgcattgac tggggggaaa agcgcatac 200
 tattgtcttc attgctgctg gtgtactatt ttttacaggc tgggtggatta 250
 tcatagatgc agctgttatt tatcccacca tgaaagattt caaccactca 300
 taccatgcct gtgggtgtat agcaaccata gccttcctaa tgattaatgc 350
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 gtcaaacagg tgctcgcat tggcttttgg ttggtttcat gttggccttt 450
 ggatctctga ttgcatctat gtggattctt tttggaggtt atgttgctaa 500
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 aacttatttc tgagtgtagt ctacagctta agttgtgtaa tactaaaaatc 750
 acgagaacac ctataacaaca accaaaaatc tatttggtga tgcacttgat 800
 taacttataa aatgttagag gaaactttca catgaataat tttgtcaaaa 850
 ttttatcatg gtataatttg taaaaataaa aagaaattac aaaagaaatt 900
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 gtcaaatgt taaatgaaat ataacattt tttagttttt aaaatatcc 1050
 tgggtcaaaa ttcttcctca ctataattgg tatttacttt taccaaaaat 1100
 tctgtgaaca tgtaatgtaa ctggcttttg agggctctcc aagggtgtgag 1150
 tggacgtgtt ggaagagaga agcaccatgg tccagccacc aggcctccctg 1200
 tgtcccttcc atgggaaggt cttccgctgt gcctctcatt ccaagggcag 1250
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<210> 103

<211> 157

<212> PRT

<213> Homo sapiens

<400> 103

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Trp Gly Glu Lys Arg Asn Thr Ile Ala Ser Ile Ala Ala Gly Val
20 25 30

Leu Phe Phe Thr Gly Trp Trp Ile Ile Ile Asp Ala Ala Val Ile
35 40 45

Tyr Pro Thr Met Lys Asp Phe Asn His Ser Tyr His Ala Cys Gly
50 55 60

Val Ile Ala Thr Ile Ala Phe Leu Met Ile Asn Ala Val Ser Asn
65 70 75

Gly Gln Val Arg Gly Asp Ser Tyr Ser Glu Cys Leu Gly Gln
80 85 90

Thr Gly Ala Arg Ile Trp Leu Phe Val Gly Phe Met Leu Ala Phe
95 100 105

Gly Ser Leu Ile Ala Ser Met Trp Ile Leu Phe Gly Gly Tyr Val
110 115 120

Ala Lys Glu Lys Asp Ile Val Tyr Pro Gly Ile Ala Val Phe Phe
125 130 135

Gln Asn Ala Phe Ile Phe Phe Gly Gly Leu Val Phe Lys Phe Gly
140 145 150

Arg Thr Glu Asp Leu Trp Gln
155

<210> 104

<211> 545

<212> DNA

<213> Homo sapiens

<400> 104

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tggatttcta gagggcttga gatgctcaga atgcattgac tggggggaaa 150

agcgcaatac tattgcttcc attgctgctg gtgtactatt ttttacaggc 200

tgggtggatta tcatagatgc agctgttatt tatcccacca tgaagaattt 250

caaccactca taccatgcct gtggtgttat agcaacata gocttcttaa 300

tgattaatgc agtatcgaat ggacaagtcc gaggtgatag ttacagttaa 350

ggtgtgtctg gtcaaacagg tgctgcatt tggcttttcg ttggtttcat 400

gttgcccttt ggatctctga ttgcatctat gtggattcct tttggagggt 450
atgttgctaa agaaaaagac atagtatacc ctggaattgc tgtatttttc 500
cagaatgcct tcactctttt tggagggtcg gtttttaagt ttggc 545

<210> 105
<211> 490
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 31, 39, 108, 145, 179, 219, 412, 479
<223> unknown base

<400> 105
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tgggtgtaata ttttttacag gctggtggat tatcatagat gcagntgtta 150
ttatccccc catgaagat ttcaaccant cataccatgc ctgtggtgtt 200
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<223> unknown base

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<211> 377

<212> DNA

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<222> 52, 67, 70, 78, 105, 144, 150, 209, 266, 268, 282, 310, 331, 356

<223> unknown base

<400> 107

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<212> DNA

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<222> 12, 25, 65, 130, 437, 537

<223> unknown base

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cogaggtgat agttacagt aaggttgtct ggtgcaaaca ggtgctgcga 400

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tg 552

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 <223> Synthetic oligonucleotide probe

<400> 109
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<210> 112
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Ser	Pro	Phe	Asp	Ile	Met	Val	Leu	Glu	Gly	Pro	Asn	Gly	Arg	Lys	
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Leu	Lys	Phe	Leu	Pro	Leu	Pro	Val	Val	Gln	Leu	Leu	Asp	Arg	Cys	
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Phe	His	Thr	Ile	Pro	Val	Ile	Gln	Arg	Ala	Gly	Gly	Ala	Val	Leu	
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Ala	Cys	Gly	Val	Ser	Val	Lys	Lys	Gly	His	Glu	Leu	Val	Asn	Ile	
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Tyr	Cys	Pro	Ile	Val	Val	Ser	Asn	Ala	Gly	Leu	Phe	Asn	Thr	Tyr	
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Gln	Gln	Leu	Gly	Thr	Val	Arg	Pro	Gly	Leu	Gly	Met	Thr	Ser	Val	
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Phe	Ile	Cys	Leu	Arg	Gly	Thr	Lys	Glu	Asp	Leu	His	Leu	Pro	Ser	
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Thr	Ala	Tyr	Glu	Trp	Phe	Glu	Glu	Trp	Gln	Ala	Glu	Leu	Lys	Gly	
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Lys	Val	Glu	Ser	Val	Thr	Ala	Gly	Ser	Pro	Leu	Thr	Asn	Gln	Phe	
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Tyr	Leu	Ala	Ala	Pro	Arg	Gly	Ala	Cys	Tyr	Gly	Ala	Asp	His	Asp	
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Leu	Gly	Arg	Leu	His	Pro	Cys	Val	Met	Ala	Ser	Leu	Arg	Ala	Gln	
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Cys	Gly	Leu	Val	Gly	Ala	Leu	Gln	Gly	Ala	Leu	Leu	Cys	Ser	Ser	
				575					580					585	
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<211> 1701

<212> DNA

<213> Homo sapiens

<400> 114

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a 1701

<210> 115
 <211> 301
 <212> PRT
 <213> Homo sapiens

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Lys Asp His Thr	Thr Ala Gly Arg Val	Val Ala Gly Gln Ile Phe	
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Leu Asp Ser Glu	Glu Ser Glu Leu Glu	Ser Ser Ile Gln Glu Glu	
	65	70	75
Glu Asp Ser Leu	Lys Ser Gln Glu Gly	Glu Ser Val Thr Glu Asp	
	80	85	90
Ile Ser Phe Leu	Glu Ser Pro Asn Pro	Glu Asn Lys Asp Tyr Glu	
	95	100	105
Glu Pro Lys Lys	Val Arg Lys Pro Ala	Leu Thr Ala Ile Glu Gly	
	110	115	120
Thr Ala His Gly	Thr Pro Cys His Phe	Pro Phe Leu Phe Leu Asp	
	125	130	135
Lys Glu Tyr Asp	Glu Cys Thr Ser Asp	Gly Arg Glu Asp Gly Arg	
	140	145	150
Leu Trp Cys Ala	Thr Thr Tyr Asp Tyr	Lys Ala Asp Glu Lys Trp	
	155	160	165
Gly Phe Cys Glu	Thr Glu Glu Glu Ala	Ala Lys Arg Arg Gln Met	
	170	175	180
Gln Glu Ala Glu	Met Met Tyr Gln Thr	Gly Met Lys Ile Leu Asn	
	185	190	195
Gly Ser Asn Lys	Lys Ser Gln Lys Arg	Glu Ala Tyr Arg Tyr Leu	
	200	205	210
Gln Lys Ala Ala	Ser Met Asn His Thr	Lys Ala Leu Glu Arg Val	
	215	220	225
Ser Tyr Ala Leu	Leu Phe Gly Asp Tyr	Leu Pro Gln Asn Ile Gln	
	230	235	240
Ala Ala Arg Glu	Met Phe Glu Lys Leu	Thr Glu Glu Gly Ser Pro	
	245	250	255
Lys Gly Gln Thr	Ala Leu Gly Phe Leu	Tyr Ala Ser Gly Leu Gly	
	260	265	270
Val Asn Ser Ser	Gln Ala Lys Ala Leu	Val Tyr Tyr Thr Phe Gly	
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 <212> DNA
 <213> Homo sapiens
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<210> 117
 <211> 123
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 His Val Thr Ile Arg Asp Tyr Gly Val Ser Trp Tyr Gln Gln Arg
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 Ala Gly Ser Ala Pro Arg Tyr Leu Leu Tyr Tyr Arg Ser Glu Glu
 65 70 75
 Asp His His Arg Pro Ala Asp Ile Pro Asp Arg Phe Ser Ala Ala
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<210> 118
 <211> 3402
 <212> DNA
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<210> 119
 <211> 504
 <212> PRT
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 35 40 45
 Thr Val Arg Leu Gln Cys Pro Val Glu Gly Asp Pro Pro Pro Leu
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 Thr Met Trp Thr Lys Asp Gly Arg Thr Ile His Ser Gly Trp Ser
 65 70 75
 Arg Phe Arg Val Leu Pro Gln Gly Leu Lys Val Lys Gln Val Glu
 80 85 90
 Arg Glu Asp Ala Gly Val Tyr Val Cys Lys Ala Thr Asn Gly Phe
 95 100 105
 Gly Ser Leu Ser Val Asn Tyr Thr Leu Val Val Leu Asp Asp Ile
 110 115 120
 Ser Pro Gly Lys Glu Ser Leu Gly Pro Asp Ser Ser Ser Gly Gly
 125 130 135
 Gln Glu Asp Pro Ala Ser Gln Gln Trp Ala Arg Pro Arg Phe Thr
 140 145 150
 Gln Pro Ser Lys Met Arg Arg Arg Val Ile Ala Arg Pro Val Gly
 155 160 165
 Ser Ser Val Arg Leu Lys Cys Val Ala Ser Gly His Pro Arg Pro
 170 175 180
 Asp Ile Thr Trp Met Lys Asp Asp Gln Ala Leu Thr Arg Pro Glu
 185 190 195
 Ala Ala Glu Pro Arg Lys Lys Lys Trp Thr Leu Ser Leu Lys Asn
 200 205 210
 Leu Arg Pro Glu Asp Ser Gly Lys Tyr Thr Cys Arg Val Ser Asn
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<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 121

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<400> 122

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<210> 123

<211> 4420

<212> DNA

<213> Homo sapiens

<400> 123

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<210> 124

<211> 1184

<212> PRT

<213> Homo sapiens

<400> 124

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				20					25					30	
Arg	Arg	Val	Gln	Pro	Gly	Lys	Lys	Asn	Pro	Ser	Ile	Phe	Ala	Lys	
				35					40					45	
Pro	Ala	Asp	Thr	Leu	Glu	Ser	Pro	Gly	Glu	Trp	Thr	Thr	Trp	Phe	
				50					55					60	
Asn	Ile	Asp	Tyr	Pro	Gly	Gly	Lys	Gly	Asp	Tyr	Glu	Arg	Leu	Asp	
				65					70					75	
Ala	Ile	Arg	Phe	Tyr	Tyr	Gly	Asp	Arg	Val	Cys	Ala	Arg	Pro	Leu	
				80					85					90	
Arg	Leu	Glu	Ala	Arg	Thr	Thr	Asp	Trp	Thr	Pro	Ala	Gly	Ser	Thr	
				95					100					105	
Gly	Gln	Val	Val	His	Gly	Ser	Pro	Arg	Glu	Gly	Phe	Trp	Cys	Leu	
				110					115					120	
Asn	Arg	Glu	Gln	Arg	Pro	Gly	Gln	Asn	Cys	Ser	Asn	Tyr	Thr	Val	
				125					130					135	
Arg	Phe	Leu	Cys	Pro	Pro	Gly	Ser	Leu	Arg	Arg	Asp	Thr	Glu	Arg	
				140					145					150	
Ile	Trp	Ser	Pro	Trp	Ser	Pro	Trp	Ser	Lys	Cys	Ser	Ala	Ala	Cys	
				155					160					165	
Gly	Gln	Thr	Gly	Val	Gln	Thr	Arg	Thr	Arg	Ile	Cys	Leu	Ala	Glu	
				170					175					180	
Met	Val	Ser	Leu	Cys	Ser	Glu	Ala	Ser	Glu	Gly	Gln	His	Cys		
				185					190					195	
Met	Gly	Gln	Asp	Cys	Thr	Ala	Cys	Asp	Leu	Thr	Cys	Pro	Met	Gly	
				200					205					210	

Gln Val Asn Ala	Asp Cys Asp Ala Cys	Met Cys Gln Asp Phe	Met
215		220	225
Leu His Gly Ala	Val Ser Leu Pro Gly	Gly Ala Pro Ala Ser	Gly
230		235	240
Ala Ala Ile Tyr	Leu Leu Thr Lys Thr	Pro Lys Leu Leu Thr	Gln
245		250	255
Thr Asp Ser Asp	Gly Arg Phe Arg Ile	Pro Gly Leu Cys Pro	Asp
260		265	270
Gly Lys Ser Ile	Leu Lys Ile Thr Lys	Val Lys Phe Ala Pro	Ile
275		280	285
Val Leu Thr Met	Pro Lys Thr Ser Leu	Lys Ala Ala Thr Ile	Lys
290		295	300
Ala Glu Phe Val	Arg Ala Glu Thr Pro	Tyr Met Val Met Asn	Pro
305		310	315
Glu Thr Lys Ala	Arg Arg Ala Gly Gln	Ser Val Ser Leu Cys	Cys
320		325	330
Lys Ala Thr Gly	Lys Pro Arg Pro Asp	Lys Tyr Phe Trp Tyr	His
335		340	345
Asn Asp Thr Leu	Leu Asp Pro Ser Leu	Tyr Lys His Glu Ser	Lys
350		355	360
Leu Val Leu Arg	Lys Leu Gln Gln His	Gln Ala Gly Glu Tyr	Phe
365		370	375
Cys Lys Ala Gln	Ser Asp Ala Gly Ala	Val Lys Ser Lys Val	Ala
380		385	390
Gln Leu Ile Val	Thr Ala Ser Asp Glu	Thr Pro Cys Asn Pro	Val
395		400	405
Pro Glu Ser Tyr	Leu Ile Arg Leu Pro	His Asp Cys Phe Gln	Asn
410		415	420
Ala Thr Asn Ser	Phe Tyr Tyr Asp Val	Gly Arg Cys Pro Val	Lys
425		430	435
Thr Cys Ala Gly	Gln Gln Asp Asn Gly	Ile Arg Cys Arg Asp	Ala
440		445	450
Val Gln Asn Cys	Cys Gly Ile Ser Lys	Thr Glu Glu Arg Glu	Ile
455		460	465
Gln Cys Ser Gly	Tyr Thr Leu Pro Thr	Lys Val Ala Lys Glu	Cys
470		475	480
Ser Cys Gln Arg	Cys Thr Glu Thr Arg	Ser Ile Val Arg Gly	Arg
485		490	495
Val Ser Ala Ala	Asp Asn Gly Glu Pro	Met Arg Phe Gly His	Val
500		505	510
Tyr Met Gly Asn	Ser Arg Val Ser Met	Thr Gly Tyr Lys Gly	Thr
515		520	525

Phe Thr Leu His Val Pro Gln Asp Thr	Glu Arg Leu Val Leu Thr
530	535 540
Phe Val Asp Arg Leu Gln Lys Phe Val Asn Thr Thr Lys Val Leu	
545	550 555
Pro Phe Asn Lys Lys Gly Ser Ala Val Phe His Glu Ile Lys Met	
560	565 570
Leu Arg Arg Lys Glu Pro Ile Thr Leu Glu Ala Met Glu Thr Asn	
575	580 585
Ile Ile Pro Leu Gly Glu Val Val Gly Glu Asp Pro Met Ala Glu	
590	595 600
Leu Glu Ile Pro Ser Arg Ser Phe Tyr Arg Gln Asn Gly Glu Pro	
605	610 615
Tyr Ile Gly Lys Val Lys Ala Ser Val Thr Phe Leu Asp Pro Arg	
620	625 630
Asn Ile Ser Thr Ala Thr Ala Ala Gln Thr Asp Leu Asn Phe Ile	
635	640 645
Asn Asp Glu Gly Asp Thr Phe Pro Leu Arg Thr Tyr Gly Met Phe	
650	655 660
Ser Val Asp Phe Arg Asp Glu Val Thr Ser Glu Pro Leu Asn Ala	
665	670 675
Gly Lys Val Lys Val His Leu Asp Ser Thr Gln Val Lys Met Pro	
680	685 690
Glu His Ile Ser Thr Val Lys Leu Trp Ser Leu Asn Pro Asp Thr	
695	700 705
Gly Leu Trp Glu Glu Glu Gly Asp Phe Lys Phe Glu Asn Gln Arg	
710	715 720
Arg Asn Lys Arg Glu Asp Arg Thr Phe Leu Val Gly Asn Leu Glu	
725	730 735
Ile Arg Glu Arg Arg Leu Phe Asn Leu Asp Val Pro Glu Ser Arg	
740	745 750
Arg Cys Phe Val Lys Val Arg Ala Tyr Arg Ser Glu Arg Phe Leu	
755	760 765
Pro Ser Glu Gln Ile Gln Gly Val Val Ile Ser Val Ile Asn Leu	
770	775 780
Glu Pro Arg Thr Gly Phe Leu Ser Asn Pro Arg Ala Trp Gly Arg	
785	790 795
Phe Asp Ser Val Ile Thr Gly Pro Asn Gly Ala Cys Val Pro Ala	
800	805 810
Phe Cys Asp Asp Gln Ser Pro Asp Ala Tyr Ser Ala Tyr Val Leu	
815	820 825
Ala Ser Leu Ala Gly Glu Glu Leu Gln Ala Val Glu Ser Ser Pro	
830	835 840

Lys Phe Asn Pro Asn Ala Ile Gly Val Pro Gln Pro Tyr Leu Asn
 845 850 855
 Lys Leu Asn Tyr Arg Arg Thr Asp His Glu Asp Pro Arg Val Lys
 860 865 870
 Lys Thr Ala Phe Gln Ile Ser Met Ala Lys Pro Arg Pro Asn Ser
 875 880 885
 Ala Glu Glu Ser Asn Gly Pro Ile Tyr Ala Phe Glu Asn Leu Arg
 890 895 900
 Ala Cys Glu Glu Ala Pro Pro Ser Ala Ala His Phe Arg Phe Tyr
 905 910 915
 Gln Ile Glu Gly Asp Arg Tyr Asp Tyr Asn Thr Val Pro Phe Asn
 920 925 930
 Glu Asp Asp Pro Met Ser Trp Thr Glu Asp Tyr Leu Ala Trp Trp
 935 940 945
 Pro Lys Pro Met Glu Phe Arg Ala Cys Tyr Ile Lys Val Lys Ile
 950 955 960
 Val Gly Pro Leu Glu Val Asn Val Arg Ser Arg Asn Met Gly Gly
 965 970 975
 Thr His Arg Arg Thr Val Gly Lys Leu Tyr Gly Ile Arg Asp Val
 980 985 990
 Arg Ser Thr Arg Asp Arg Asp Gln Pro Asn Val Ser Ala Ala Cys
 995 1000 1005
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 1055 1060 1065
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 1070 1075 1080
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 1085 1090 1095
 Phe Asp Gly Thr Ser Asp Gly Ser Ser Arg Ile Met Lys Ser Asn
 1100 1105 1110
 Val Gly Val Ala Leu Thr Phe Asn Cys Val Glu Arg Gln Val Gly
 1115 1120 1125
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 1130 1135 1140
 Pro Ala Ala Gly Thr Val Gln Gly Arg Val Pro Ser Arg Arg Gln
 1145 1150 1155

Gln Arg Ala Ser Arg Gly Gly Gln Arg Gln Gly Gly Val Val Ala
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Ser Leu Arg Phe Pro Arg Val Ala Gln Gln Pro Leu Ile Asn
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 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

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<210> 126
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 <212> DNA
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<220>
 <223> Synthetic oligonucleotide probe

<400> 126
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<210> 127
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 <212> DNA
 <213> Artificial Sequence

<220>
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<400> 127
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<210> 128
 <211> 2819
 <212> DNA
 <213> Homo sapiens

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<210> 129

<211> 438

<212> PRT

<213> Homo sapiens

<400> 129

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Val	Ser	Ser	Val	Met	Gln	Pro	Tyr	Pro	Leu	Val	Trp	Gly	His	Tyr
				20					25					30

Asp	Leu	Cys	Lys	Thr	Gln	Ile	Tyr	Thr	Glu	Glu	Gly	Lys	Val	Trp
				35					40					45

Asp	Tyr	Met	Ala	Cys	Gln	Pro	Glu	Ser	Thr	Asp	Met	Thr	Lys	Tyr
				50					55					60

Leu	Lys	Val	Lys	Leu	Asp	Pro	Pro	Asp	Ile	Thr	Cys	Gly	Asp	Pro
				65					70					75

Pro	Glu	Thr	Phe	Cys	Ala	Met	Gly	Asn	Pro	Tyr	Met	Cys	Asn	Asn
				80					85					90

Glu	Cys	Asp	Ala	Ser	Thr	Pro	Glu	Leu	Ala	His	Pro	Pro	Glu	Leu
				95					100					105

Met	Phe	Asp	Phe	Glu	Gly	Arg	His	Pro	Ser	Thr	Phe	Trp	Gln	Ser
				110					115					120

Ala	Thr	Trp	Lys	Glu	Tyr	Pro	Lys	Pro	Leu	Gln	Val	Asn	Ile	Thr
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Leu Ser Trp Ser	Lys Thr Ile Glu 140	Leu Thr Asp Asn Ile Val 145	Ile 150		
Thr Phe Glu Ser	Gly Arg Pro Asp Gln 155	Met Ile Leu Glu Lys 160	Ser 165		
Leu Asp Tyr Gly	Arg Thr Trp Gln Pro 170	Tyr Gln Tyr Tyr Ala 175	Thr 180		
Asp Cys Leu Asp	Ala Phe His Met Asp 185	Pro Lys Ser Val Lys 190	Asp 195		
Leu Ser Gln His	Thr Val Leu Glu Ile 200	Ile Cys Thr Glu Glu 205	Tyr 210		
Ser Thr Gly Tyr	Thr Thr Asn Ser Lys 215	Ile Ile His Phe Glu 220	Ile 225		
Lys Asp Arg Phe	Ala Leu Phe Ala Gly 230	Pro Arg Leu Arg Asn 235	Met 240		
Ala Ser Leu Tyr	Gly Gln Leu Asp Thr 245	Thr Lys Lys Leu Arg 250	Asp 255		
Phe Phe Thr Val	Thr Asp Leu Arg Ile 260	Arg Leu Leu Arg Pro 265	Ala 270		
Val Gly Glu Ile	Phe Val Asp Glu Leu 275	His Leu Ala Arg Tyr 280	Phe 285		
Tyr Ala Ile Ser	Asp Ile Lys Val Arg 290	Gly Arg Cys Lys Cys 295	Asn 300		
Leu His Ala Thr	Val Cys Val Tyr Asp 305	Asn Ser Lys Leu Thr 310	Cys 315		
Glu Cys Glu His	Asn Thr Thr Gly Pro 320	Asp Cys Gly Lys Cys 325	Lys 330		
Lys Asn Tyr Gln	Gly Arg Pro Trp Ser 335	Pro Gly Ser Tyr Leu 340	Pro 345		
Ile Pro Lys Gly	Thr Ala Asn Thr Cys 350	Ile Pro Ser Ile Ser 355	Ser 360		
Ile Gly Thr Asn	Val Cys Asp Asn Glu 365	Leu Leu His Cys Gln 370	Asn 375		
Gly Gly Thr Cys	His Asn Asn Val Arg 380	Cys Leu Cys Pro Ala 385	Ala 390		
Tyr Thr Gly Ile	Leu Cys Glu Lys Leu 395	Arg Cys Glu Glu Ala 400	Gly 405		
Ser Cys Gly Ser	Asp Ser Gly Gln Gly 410	Ala Pro Pro His Gly 415	Thr 420		
Pro Ala Leu Leu	Leu Leu Thr Thr Leu 425	Leu Gly Thr Ala Ser 430	Pro 435		
Leu Val Phe					

<210> 130
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 130
 tcgattatgg acgaacatgg cagc 24

 <210> 131
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 131
 ttctgagatc cctcatcctc 20

 <210> 132
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 132
 aggttcaggg acagcaagtt tggg 24

 <210> 133
 <211> 50
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 133
 ttgtctggac ctccgctacg gaattggctt ccctctacgg acagctggat 50

 <210> 134
 <211> 1493
 <212> DNA
 <213> Homo sapiens

 <400> 134
 cccacgcgtc cgggtgacct gggccgagcc ctcccggtcg gctaaagattg 50
 ctgaggaggc ggcgggtagc tggcaggcgc cgacttcga aggcgcgct 100
 cggggcgagg tgtcctcatg acttctcttg tggaccatgt cgtgatctt 150
 ttttgctgc gtggtacggg taagggatgg actgccctc tcagcctcta 200
 ctgattttta ccacaccaa gattttttgg aatggaggag acggctcaag 250
 agtttagcct tgcgactggc ccagtatcca ggtcgaggtt ctgcagaagg 300

ttgtgacttt agtatacatt ttctctcttt cggggacgtg gcctgcatgg 350
 ctatctgctc ctgccagtgt ccagcagcca tggccttctg ctctctggag 400
 accctgtggt ggaattcac agcttctat gacactacct gcattggcct 450
 agcctccagg ccatacgctt ttcttgagtt tgacagcatc attcagaaaag 500
 tgaagtggca ttttaactat gtaagttcct ctcagatgga gtgcagcttg 550
 gaaaaaattc aggaggagct caagttgcag cctccagcgg ttctcactct 600
 ggaggacaca gatgtggcaa atgggggtgat gaatgggtcac acaccgatgc 650
 acttgagacc tgctcctaatt ttccgaatgg aaccagtgac agcctgggtg 700
 atcctctccc tcattctcaa catcatgtgt gctgccctga atctcattcg 750
 aggagttcac cttgcagaac attctttaca ggatccaagg agctggttct 800
 gctggttgga ccaaacctcg tgagccagcc acccctgacc caaatgagga 850
 gagctctgat tctcccatcc gggagcagtg atgtcaaat tctgctgctg 900
 gggaaatctc atcagcaggg agcctgtgga aaagggcatg tcagtgaat 950
 ctgggaatgg ctggattcgg aaacatctgc ccatgtgtat tgatggcaga 1000
 gctgtgtccc acaagcgctt ttatattagg gtaaaattaa caaatccatt 1050
 ctattctctt gacctatgct tagtacatat gacctttaac cottacattt 1100
 atatgattct ggggttgctt cagaagtgtt atttoatgaa tcattcatat 1150
 gatttgatcc ccaggattc tattttgttt aatgggcttt tctactaaaa 1200
 gcataaaata ctgaggctga tttagtcagg gcaaaaccat ttactttaca 1250
 tattcgtttt caatacttgc tgttcatggt acacaagctt cttacggttt 1300
 tcttgtaaca ataaatattt tgagtaaata atgggtacat tttacaaac 1350
 tcagtagtac aacctaaact tgtataaaag tgtgtaaaaa tgtatagcca 1400
 tttatatcct atgtataaat taaatgaggt ggcttcagaa atggcagaat 1450
 aaatctaaag tgtttattaa aaaaaaaaaa aaaaaaaaaa aag 1493

<210> 135

<211> 228

<212> PRT

<213> Homo sapiens

<400> 135

Met Ser Val Ile Phe Phe Ala Cys Val Val Arg Val Arg Asp Gly
 1 5 10 15

Leu Pro Leu Ser Ala Ser Thr Asp Phe Tyr His Thr Gln Asp Phe
 20 25 30

Leu Glu Trp Arg Arg Arg Leu Lys Ser Leu Ala Leu Arg Leu Ala
 35 40 45

Gln	Tyr	Pro	Gly	Arg	Gly	Ser	Ala	Glu	Gly	Cys	Asp	Phe	Ser	Ile	50	55	60
His	Phe	Ser	Ser	Phe	Gly	Asp	Val	Ala	Cys	Met	Ala	Ile	Cys	Ser	65	70	75
Cys	Gln	Cys	Pro	Ala	Ala	Met	Ala	Phe	Cys	Phe	Leu	Glu	Thr	Leu	80	85	90
Trp	Trp	Glu	Phe	Thr	Ala	Ser	Tyr	Asp	Thr	Thr	Cys	Ile	Gly	Leu	95	100	105
Ala	Ser	Arg	Pro	Tyr	Ala	Phe	Leu	Glu	Phe	Asp	Ser	Ile	Ile	Gln	110	115	120
Lys	Val	Lys	Trp	His	Phe	Asn	Tyr	Val	Ser	Ser	Ser	Gln	Met	Glu	125	130	135
Cys	Ser	Leu	Glu	Lys	Ile	Gln	Glu	Glu	Leu	Lys	Leu	Gln	Pro	Pro	140	145	150
Ala	Val	Leu	Thr	Leu	Glu	Asp	Thr	Asp	Val	Ala	Asn	Gly	Val	Met	155	160	165
Asn	Gly	His	Thr	Pro	Met	His	Leu	Glu	Pro	Ala	Pro	Asn	Phe	Arg	170	175	180
Met	Glu	Pro	Val	Thr	Ala	Leu	Gly	Ile	Leu	Ser	Leu	Ile	Leu	Asn	185	190	195
Ile	Met	Cys	Ala	Ala	Leu	Asn	Leu	Ile	Arg	Gly	Val	His	Leu	Ala	200	205	210
Glu	His	Ser	Leu	Gln	Asp	Pro	Arg	Ser	Trp	Phe	Cys	Trp	Leu	Asp	215	220	225
Gln	Thr	Ser															

<210> 136
 <211> 239
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 39, 61, 143, 209
 <223> unknown base

<400> 136
 tgcttctctgg agaccctgtg gtgggaattc acagcttont atgacactac 50
 ctgcattggc nttagcctcca ggccatacgc ttttcttgag tttagacagca 100
 tcattcagaa agtgaagtgg cattttaact atgtaagttc cnttcagatg 150
 gagtgcagct tggaaaaaat tcaggaggag ctcaagttgc agcctccagc 200
 ggttctcant atggaggaca cagatgtggc aaatgggggt 239

<210> 137
 <211> 2300
 <212> DNA

<213> Homo sapiens

<400> 137

ctcagcggcg cttcctcgta gcgagcctag tggcgggtgt ttgcattgaa 50
acgtgagcgc gacccgacct taaagagtgg ggagcaaagg gaggacagag 100
ccctttaaaa cgaggcgggt ggtgcctgcc cctttaaggg cggggcgctcc 150
ggcagactgt atctgagccc cagactgccc cgagtttctg tcgcaggetg 200
cgaggaaagg cccctaggct gggctcgggt gcttggcggc ggcggcttcc 250
tccccgctcg tctccccgg gccagaggc acctcggctt cagtcatgct 300
gagcagagta tggaagcacc tgactacgaa gtgctatccg tgcgagaaca 350
gctattccac gagaggatoc gcgagtgtat tatatcaaca cttctgtttg 400
caacactgta catcctctgc cacatcttcc tgacccgctt caagaagcct 450
gctgagttca ccacagtgga tgatgaagat gccaccgtca acaagattgc 500
gtctgagctg tgcaccttta cctggcaat tgccctgggt gctgtcctgc 550
tcttgccctt ctccatcatc agcaatgagg tgctgtcttc cctgcctcgg 600
aactaotaca tccagtggct caacggctcc ctcatccatg gcctctggaa 650
ccttggtttt ctcttcccca acctgtccct catcttcttc atgccctttg 700
catatttctt cactgagtct gagggtcttg ctggctccag aaaggggtgc 750
ctgggcgggg tctatgagac agtggtgatg ttgatgtccc tcactctgct 800
ggtgctaggt atggtgtggg tggcatcagc cattgtggac aagaacaagg 850
ccaacagaga gtcaactctat gacttttggg agtactatct cccctacctc 900
tactcatgca tctccttctt tggggttctg ctgctcctgg tgtgtactcc 950
actgggtctc gcccgcatgt tctccgtcac tgggaagctg ctagtcaagc 1000
cccggctgct ggaagacctg gaggagcagc tgtactgtct agcctttgag 1050
gaggcagccc tgaccgcgag gatctgtaat cctacttctt gctggctgcc 1100
tttagacatg gagctgctac acagacaggt cctggctctg cagacacaga 1150
gggtcctgct ggagaagagg cggaaggctt cagcctggca acggaacctg 1200
ggctaacccc tggctatgct gtgcttgctg gtgctgacgg gcctgtctgt 1250
gtcattgtg gccatccaca tcttgagct gctcatcgat gaggtgcca 1300
tgccccgagg catgcagggt acctccttag gccaggtctc cttctccaag 1350
ctgggtcctt ttggtgccgt cattcaggtt gtaactcatct tttaacctaat 1400
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tgtctctcgtg tcctaagctc agcacttctc gtcttctctc gaaccctggg 1550
 gctcactcgc ttgacactgc tgggtgactt tggacgcttc aactggctgg 1600
 gcaatttcta cattgtgttc ctctacaacg cagcctttgc aggccctacc 1650
 acactctgtc tggatgaagac cttcactgca gctgtgcggg cagagctgat 1700
 ccgggccttt gggctggaca gactgceget gcccgctctcc gggttcccccc 1750
 aggcactctag gaagaccacg caccagtgc cccagctggg ggggtgggaag 1800
 gaaaaaacgt gacactgccca tctgctgcct aggcctggag ggaagcccaa 1850
 ggctacttgg acctcaggac ctggaatctg agagggtggg tggcagaggg 1900
 gagcagagcc atctgcacta ttgcataatc tgagccagag tttgggacca 1950
 ggacctcctg cttttccata cttactgtg gcctcagcat ggggtagggc 2000
 tgggtgactg ggtctagccc ctgatcccaa atctgtttac acatcaatct 2050
 gcctcactgc tgttctgggc catccccata gccatgttta catgatttga 2100
 tgtgcaatag ggtggggtag gggcagggaa aggactgggc cagggcaggc 2150
 togggagata gattgtctcc cttgcctctg gccagcaga gcctaagcac 2200
 tgtgctatcc tggaggggct ttggaccacc tgaagacca aggggatagg 2250
 gaggaggagg cttcagccat cagcaataaa gttgatccca gggaaaaaaa 2300

<210> 138
 <211> 489
 <212> PRT
 <213> Homo sapiens

<400> 138
 Met Glu Ala Pro Asp Tyr Glu Val Leu Ser Val Arg Glu Gln Leu 15
 1 5 10
 Phe His Glu Arg Ile Arg Glu Cys Ile Ile Ser Thr Leu Leu Phe 30
 20 25 30
 Ala Thr Leu Tyr Ile Leu Cys His Ile Phe Leu Thr Arg Phe Lys 45
 35 40 45
 Lys Pro Ala Glu Phe Thr Thr Val Asp Glu Asp Ala Thr Val 60
 50 55 60
 Asn Lys Ile Ala Leu Glu Leu Cys Thr Phe Thr Leu Ala Ile Ala 75
 65 70 75
 Leu Gly Ala Val Leu Leu Leu Pro Phe Ser Ile Ile Ser Asn Glu 90
 80 85 90
 Val Leu Leu Ser Leu Pro Arg Asn Tyr Tyr Ile Gln Trp Leu Asn 105
 95 100 105
 Gly Ser Leu Ile His Gly Leu Trp Asn Leu Val Phe Leu Phe Pro 120
 110 115 120
 Asn Leu Ser Leu Ile Phe Leu Met Pro Phe Ala Tyr Phe Phe Thr

	125		130		135
Glu Ser Glu Gly	Phe Ala Gly Ser Arg	Lys Gly Val Leu Gly Arg			
	140	145	150		
Val Tyr Glu Thr	Val Val Met Leu Met	Leu Leu Thr Leu Leu Val			
	155	160	165		
Leu Gly Met Val	Trp Val Ala Ser Ala	Ile Val Asp Lys Asn Lys			
	170	175	180		
Ala Asn Arg Glu	Ser Leu Tyr Asp Phe	Trp Glu Tyr Tyr Leu Pro			
	185	190	195		
Tyr Leu Tyr Ser	Cys Ile Ser Phe Leu	Gly Val Leu Leu Leu Leu			
	200	205	210		
Val Cys Thr Pro	Leu Gly Leu Ala Arg	Met Phe Ser Val Thr Gly			
	215	220	225		
Lys Leu Leu Val	Lys Pro Arg Leu Leu	Glu Asp Leu Glu Glu Gln			
	230	235	240		
Leu Tyr Cys Ser	Ala Phe Glu Glu Ala	Ala Leu Thr Arg Arg Ile			
	245	250	255		
Cys Asn Pro Thr	Ser Cys Trp Leu Pro	Leu Asp Met Glu Leu Leu			
	260	265	270		
His Arg Gln Val	Leu Ala Leu Gln Thr	Gln Arg Val Leu Leu Gln			
	275	280	285		
Lys Arg Arg Lys	Ala Ser Ala Trp Gln	Arg Asn Leu Gly Tyr Pro			
	290	295	300		
Leu Ala Met Leu	Cys Leu Leu Val Leu	Thr Gly Leu Ser Val Leu			
	305	310	315		
Ile Val Ala Ile	His Ile Leu Glu Leu	Leu Ile Asp Glu Ala Ala			
	320	325	330		
Met Pro Arg Gly	Met Gln Gly Thr Ser	Leu Gly Gln Val Ser Phe			
	335	340	345		
Ser Lys Leu Gly	Ser Phe Gly Ala Val	Ile Gln Val Val Leu Ile			
	350	355	360		
Phe Tyr Leu Met	Val Ser Ser Val Val	Gly Phe Tyr Ser Ser Pro			
	365	370	375		
Leu Phe Arg Ser	Leu Arg Pro Arg Trp	His Asp Thr Ala Met Thr			
	380	385	390		
Gln Ile Ile Gly	Asn Cys Val Cys Leu	Leu Val Leu Ser Ser Ala			
	395	400	405		
Leu Pro Val Phe	Ser Arg Thr Leu Gly	Leu Thr Arg Phe Asp Leu			
	410	415	420		
Leu Gly Asp Phe	Gly Arg Phe Asn Trp	Leu Gly Asn Phe Tyr Ile			
	425	430	435		
Val Phe Leu Tyr	Asn Ala Ala Phe Ala	Gly Leu Thr Thr Leu Cys			

440	445	450
Leu Val Lys Thr Phe Thr Ala Ala Val Arg Ala Glu Leu Ile Arg		
455	460	465
Ala Phe Gly Leu Asp Arg Leu Pro Leu Pro Val Ser Gly Phe Pro		
470	475	480
Gln Ala Ser Arg Lys Thr Gln His Gln		
485		

<210> 139
 <211> 294
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 53, 57
 <223> unknown base

<400> 139
 ggctgccgag ggaaggcccc ttgggttggt ctggttgct tggcgcgagg 50
 ggnntontcc cogctcgtcc tccccgggcc cagaggcacc tcggcttcag 100
 tcatgctgag cagagtatgg aagcacctga ctacgaagtg ctatccgtgc 150
 gagaacagct attccacgag aggatccgag agtgtattat atcaacactt 200
 ctgtttgcaa cactgtacat cctctgccac atcttcctga cccgcttcaa 250
 gaagcctgct gaggtcacca cagtggatga tgaagatgcc accg 294

<210> 140
 <211> 526
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 197, 349
 <223> unknown base

<400> 140
 gaccgacctt aaagagtggg agcaaaggga ggacagagcc ttttaaaacg 50
 aggcggtggt gcctgccctt taaggcgagg gcgtccggac gactgtatct 100
 gagccccaga ctgccccgag tttctgtcgc aggtgcgag gaaaggcccc 150
 taggtgggt ctggtgcttg gcggcgagg cttcctcccc gttgtontcc 200
 ccggggcccg aggcacctcg gcttcagtca tgctgagcag agtatggaag 250
 cactgacta cgaagtgcta tccgtgcgag aacagctatt ccacgagagg 300
 atccgcgagt gtattatata aacacttctg tttgcaaac tgtacatcnt 350
 ctgccacatc ttcctgacct gttcaagaa gcctgctgag ttcaccacag 400
 tggatgatga agatgccacc gtcaacaaga ttgcgctcga gctgtgcacc 450

tttaccctgg caattgccct gggtgctgtc ctgtccctgc ccttctocat 500

catcagcaat gaggtgctgc actccc 526

<210> 141

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 141

gactgtatct gagccccaga ctgc 24

<210> 142

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 142

tcagcaatga ggtgtgctc 20

<210> 143

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 143

tgaggaagat gagggacagg ttgg 24

<210> 144

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 144

tatggaagca cctgactacg aagtgtctatc cgtgcgagaa cagctattcc 50

<210> 145

<211> 685

<212> DNA

<213> Homo sapiens

<400> 145

gatgtgtctcc ttggagctgg tgtgcagtgt cctgactgtg agatcaagtc 50

caaacctgtt ttggaattga ggaaacttct cttttgatct cagcccttgg 100

tgggtccaggt cttcatgctg ctgtgggtga tattactggt cctggctcct 150

gtcagtggac agtttgcaag gacacccagg cccattattt tctccagcc 200

tccatggacc acagtcttcc aaggagagag agtgaccctc acttgcaagg 250

gatttcgctt ctactcacca cagaaaacaa aatggtacca tcggtacctt 300
 gggaaagaaa tactaagaga aaccccagac aatatccttg aggttcagga 350
 atctggagag tacagatgcc agggccaggg ctccccctctc agtagccctg 400
 tgoacttgga tttttcttca gagatgggat ttctctcatgc tgcccagggt 450
 aatgttgaac tcctgggctc aagtgatctg ctcaacctag cctctcaaaag 500
 cgctgggatt acagctctgc tgatcctgca agctccactt tctgtgtttg 550
 aaggagactc tgtggttctg aggtgccggg caaaggcggg agtaaacactg 600
 aataatacta tttaacaagaa tgataatgtc ctggcattcc ttaataaaaag 650
 aactgacttc caaaaaaaaa aaaaaaaaaa aaaaa 685

<210> 146

<211> 124

<212> PRT

<213> Homo sapiens

<400> 146

Met	Leu	Leu	Trp	Val	Ile	Leu	Leu	Val	Leu	Ala	Pro	Val	Ser	Gly
1				5					10					15
Gln	Phe	Ala	Arg	Thr	Pro	Arg	Pro	Ile	Ile	Phe	Leu	Gln	Pro	Pro
				20					25					30
Trp	Thr	Thr	Val	Phe	Gln	Gly	Glu	Arg	Val	Thr	Leu	Thr	Cys	Lys
				35					40					45
Gly	Phe	Arg	Phe	Tyr	Ser	Pro	Gln	Lys	Thr	Lys	Trp	Tyr	His	Arg
				50					55					60
Tyr	Leu	Gly	Lys	Glu	Ile	Leu	Arg	Glu	Thr	Pro	Asp	Asn	Ile	Leu
				65					70					75
Glu	Val	Gln	Glu	Ser	Gly	Glu	Tyr	Arg	Cys	Gln	Ala	Gln	Gly	Ser
				80					85					90
Pro	Leu	Ser	Ser	Pro	Val	His	Leu	Asp	Phe	Ser	Ser	Glu	Met	Gly
				95					100					105
Phe	Pro	His	Ala	Ala	Gln	Ala	Asn	Val	Glu	Leu	Leu	Gly	Ser	Ser
				110					115					120

Asp Leu Leu Thr

<210> 147

<211> 1621

<212> DNA

<213> Homo sapiens

<400> 147

cagaagaggg ggctagctag ctgtctctgc ggaccaggga gacccccgcg 50
 cccccccggt gtgaggcggc ctcacagggc cgggtgggct ggcgagccga 100
 cgcgcgcgcg gaggaggctg tgaggagtgt gtggaacagg acccgggaca 150

gaggaacat ggctccgag aacctgagca ccttttgctt gttgctgcta 200
 tacctcatcg gggcggtgat tgccggagca gatttctata agatcttggg 250
 ggtgcctcga agtgccctcta taaaggatat taaaagggcc tataggaaac 300
 tagccctgca gcttcatccc gaccggaacc ctgatgatcc acaagccag 350
 gagaaattec aggatctggg tgctgcttat gaggttctgt cagatagtga 400
 gaaacggaaa cagtacgata cttatggtga agaaggatta aaagatggct 450
 atcagagctc ccattggagac attttttcac acttcttttg ggattttggt 500
 ttcatgtttg gaggaacccc tcgtcagcaa gacagaaata ttccaagagg 550
 aagtgatatt attgtagatc tagaagtcac tttggaagaa gtatatgacg 600
 gaaattttgt ggaagtagtt agaacaacac ctgtggcaag gcaggctctc 650
 ggcaaacgga agtgcaattg tcggcaagag atcgcgacca cccagctggg 700
 ccctgggccc ttccaaatga cccaggaggt ggtctgcgac gaatgcccta 750
 atgtcaaact agtgaatgaa gaacgaacgc tggaagtaga aatagagcct 800
 ggggtgagag acggcatgga gtaccctttt attggagaag gtgagcctca 850
 cgtggatggg gagcctggag atttacggtt ccgaatcaaa gttgtcaagc 900
 acccaatatt tgaaaggaga ggagatgatt tgtacacaaa tgtgacaate 950
 tcattagtgt agtcaactgt tggctttgag atggatatta ctcaactgga 1000
 tggtcacaag gtacatattt cccgggataa gatcaccagg ccaggagcga 1050
 agctatgaa gaaaggggaa gggctcccca actttgacaa caacaatatc 1100
 aagggtcttt tgataatcac ttttgatgtg gatttttcaa aagaacagtt 1150
 aacagaggaa gcgagagaag gtatcaaaca gctactgaaa caagggtcag 1200
 tgcagaaggt atacaatgga ctgcaaggat attgagagt aataaaattg 1250
 gactttgttt aaaataagtg aataagcgat atttattatc tgcaagggtt 1300
 ttttgtgtgt gttttgtttt ttattttcaa tatgcaagtt aggcctaatt 1350
 tttttatcta atgacatca tgaaatgaat aagagggctt aagaatttgt 1400
 ccatttgcac tcgaaaaaga atgaccagca aaaggtttac taatacctct 1450
 ccctttgggg atttaagtgc tgggtgctgcc gctgagttt caagaattaa 1500
 agctgcaaga ggactccagg agcaaaaaga acacaatata gaggtttgga 1550
 gttgttagca atttcattca aatgccaac tggagaagtc tgtttttaa 1600
 tacattttgt tgtattttt a 1621

<210> 148
 <211> 358
 <212> PRT

<213> Homo sapiens

<400> 148

Met	Ala	Pro	Gln	Asn	Leu	Ser	Thr	Phe	Cys	Leu	Leu	Leu	Leu	Tyr
1				5					10					15
Leu	Ile	Gly	Ala	Val	Ile	Ala	Gly	Arg	Asp	Phe	Tyr	Lys	Ile	Leu
				20					25					30
Gly	Val	Pro	Arg	Ser	Ala	Ser	Ile	Lys	Asp	Ile	Lys	Lys	Ala	Tyr
				35					40					45
Arg	Lys	Leu	Ala	Leu	Gln	Leu	His	Pro	Asp	Arg	Asn	Pro	Asp	Asp
				50					55					60
Pro	Gln	Ala	Gln	Glu	Lys	Phe	Gln	Asp	Leu	Gly	Ala	Ala	Tyr	Glu
				65					70					75
Val	Leu	Ser	Asp	Ser	Glu	Lys	Arg	Lys	Gln	Tyr	Asp	Thr	Tyr	Gly
				80					85					90
Glu	Glu	Gly	Leu	Lys	Asp	Gly	His	Gln	Ser	Ser	His	Gly	Asp	Ile
				95					100					105
Phe	Ser	His	Phe	Phe	Gly	Asp	Phe	Gly	Phe	Met	Phe	Gly	Gly	Thr
				110					115					120
Pro	Arg	Gln	Gln	Asp	Arg	Asn	Ile	Pro	Arg	Gly	Ser	Asp	Ile	Ile
				125					130					135
Val	Asp	Leu	Glu	Val	Thr	Leu	Glu	Glu	Val	Tyr	Ala	Gly	Asn	Phe
				140					145					150
Val	Glu	Val	Val	Arg	Asn	Lys	Pro	Val	Ala	Arg	Gln	Ala	Pro	Gly
				155					160					165
Lys	Arg	Lys	Cys	Asn	Cys	Arg	Gln	Glu	Met	Arg	Thr	Thr	Gln	Leu
				170					175					180
Gly	Pro	Gly	Arg	Phe	Gln	Met	Thr	Gln	Glu	Val	Val	Cys	Asp	Glu
				185					190					195
Cys	Pro	Asn	Val	Lys	Leu	Val	Asn	Glu	Glu	Arg	Thr	Leu	Glu	Val
				200					205					210
Glu	Ile	Glu	Pro	Gly	Val	Arg	Asp	Gly	Met	Glu	Tyr	Pro	Phe	Ile
				215					220					225
Gly	Glu	Gly	Glu	Pro	His	Val	Asp	Gly	Glu	Pro	Gly	Asp	Leu	Arg
				230					235					240
Phe	Arg	Ile	Lys	Val	Val	Lys	His	Pro	Ile	Phe	Glu	Arg	Arg	Gly
				245					250					255
Asp	Asp	Leu	Tyr	Thr	Asn	Val	Thr	Ile	Ser	Leu	Val	Glu	Ser	Leu
				260					265					270
Val	Gly	Phe	Glu	Met	Asp	Ile	Thr	His	Leu	Asp	Gly	His	Lys	Val
				275					280					285
His	Ile	Ser	Arg	Asp	Lys	Ile	Thr	Arg	Pro	Gly	Ala	Lys	Leu	Trp
				290					295					300

Lys Lys Gly Glu Gly Leu Pro Asn Phe Asp Asn Asn Asn Ile Lys
 305 310 315

Gly Ser Leu Ile Ile Thr Phe Asp Val Asp Phe Pro Lys Glu Gln
 320 325 330

Leu Thr Glu Glu Ala Arg Glu Gly Ile Lys Gln Leu Leu Lys Gln
 335 340 345

Gly Ser Val Gln Lys Val Tyr Asn Gly Leu Gln Gly Tyr
 350 355

<210> 149
 <211> 509
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 34, 52, 134, 142, 155, 158, 196, 217, 228, 272, 347, 410, 445,
 482
 <223> unknown base

<400> 149
 tgggaccagg gaaccccggtg ccccccgggtg gagngcctaa cagcccggtg 50
 gntgcgaccg aagcggcggtg cggaggaggt tttgaggatt ttggaacag 100
 gacccggaca gaggaacctt ggttcgcgag aacntgagca cnttttgct 150
 gttgntgnta tacttcacgt gggcggtgat tgccggacga gatttntata 200
 agattttggt gtgcctngaa gtgcctnta taaaggatat taaaaaggcc 250
 tataggaaac tagccctgca gntttatccc gaccggaacc ctgatgatcc 300
 acaagcccag gaaaaattcc aggatttggg tgctgcttat gaggttntgt 350
 cagatagtga gaaacggaaa cagtacgata attatggtga agaaggatta 400
 aaagatggtg atcagagctc ccatggagac attttttcac acttnttttg 450
 ggatttttgt ttcattgttg gaggaacccc tngtcagcaa gacagaaata 500
 ttccaagag 509

<210> 150
 <211> 1532
 <212> DNA
 <213> Homo sapiens

<400> 150
 ggcacgagcg ggcggggcag tcgcgggatg cgcccgagg ccacagcctg 50
 aggccttcag gtctctgcag gtgtcgtgga ggaacctagc acctgccatc 100
 ctcttcccc aattgccact tccagcagct ttagcccatg aggaggatgt 150
 gaccgggact gagtccagg cccctctgaa gcatggagac tgtggtgatt 200
 gttgccatag gtgtgctggc caccatcttt ctggcttcgt ttgcagcctt 250
 ggtgctgtgt tgcaggcagc gctactgocg gccgcgagac ctgctgcagc 300

gctatgattc taagcccatt gtggacctca ttggtgccat ggagacccag 350
 tctgagccct ctgagttaga actggacgat gtcgttatca ccaaccccca 400
 cattgaggcc attctggaga atgaagactg gatcgaagat gcctcgggtc 450
 tcatgtccca ctgcattgcc atcttgaaga tttgtcacac tctgacagag 500
 aagcttgttg ccatgacaat gggctctggg gccaaagatga agacttcagc 550
 cagtgtcagc gacatcattg tgggtggccaa gcgcatcagc cccagggttg 600
 atgatgttgt gaagtcgatg taccctccgt tggaccccaa actcctggac 650
 gcacggacga ctgccctgct cctgtctgtc agtcacctgg tctggtgac 700
 aaggaatgcc tgccatctga cgggaggcct ggactggatt gaccagtctc 750
 tctcggctgc tgaggagcat ttggaagtcc ttcgagaagc agccctagct 800
 tctgagccag ataaaggcct cccaggccct gaaggcttcc tgcaggagca 850
 gtctgcaatt tagtgctac aggccagcag ctagccatga aggccctgc 900
 cgccatccct ggatgggtca gcttagcctt ctacttttct ctatagagtt 950
 agttgtttct cactgctgga gatttcagct gtgtgtgcat agtaaagcag 1000
 gagatccccc tcagtttatg cctcttttgc agttgcaaac tgtggctggt 1050
 gagtggcagt ctaatactac agttagggga gatgccattc actctctgca 1100
 agaggagtat tgaactgg tggaactgtca gctttattta gctcacctag 1150
 tgttttcaag aaaattgagc caccgtctaa gaaatcaaga ggtttcacat 1200
 taaaattaga attctggcc tctctcgatc ggtcagaatg tgtggcaatt 1250
 ctgatctgca ttttcagaag aggacaatca attgaaacta agtaggggtt 1300
 tcttcttttg gcaagacttg tactctctca cctggcctgt ttcatttatt 1350
 tgtattatct gcctgggtcc tgaggcgtct ggtctctcc tctccctgac 1400
 aggtttgggt ttgaagctga ggaactacaa agttgatgat ttctttttta 1450
 tctttatgcc tgcaatttta cctagctacc actaggtgga tagtaaat 1500
 atacttatgt ttccctcaaa aaaaaaaaaa aa 1532

<210> 151
 <211> 226
 <212> PRT
 <213> Homo sapiens

<400> 151
 Met Glu Thr Val Val Ile Val Ala Ile Gly Val Leu Ala Thr Ile
 1 5 10 15
 Phe Leu Ala Ser Phe Ala Ala Leu Val Leu Val Cys Arg Gln Arg
 20 25 30
 Tyr Cys Arg Pro Arg Asp Leu Leu Gln Arg Tyr Asp Ser Lys Pro

	35	40	45
Ile Val Asp Leu	Ile Gly Ala Met Glu Thr 50	Gln Ser Glu Pro Ser 55	60
Glu Leu Glu Leu Asp Asp Val Val	Ile Thr 65	Asn Pro His Ile Glu 70	75
Ala Ile Leu Glu Asn Glu Asp Trp	Ile Glu 80	Asp Ala Ser Gly Leu 85	90
Met Ser His Cys Ile Ala Ile Leu Lys	Ile Cys His Thr Leu Thr 95	100	105
Glu Lys Leu Val Ala Met Thr Met Gly	Ser Gly Ala Lys Met Lys 110	115	120
Thr Ser Ala Ser Val Ser Asp Ile Ile	Val Val Ala Lys Arg Ile 125	130	135
Ser Pro Arg Val Asp Asp Val Val Lys	Ser Met Tyr Pro Pro Leu 140	145	150
Asp Pro Lys Leu Leu Asp Ala Arg Thr	Thr Ala Leu Leu Leu Ser 155	160	165
Val Ser His Leu Val Leu Val Thr Arg	Asn Ala Cys His Leu Thr 170	175	180
Gly Gly Leu Asp Trp Ile Asp Gln Ser	Leu Ser Ala Ala Glu 185	190	195
His Leu Glu Val Leu Arg Glu Ala Ala	Leu Ala Ser Glu Pro Asp 200	205	210
Lys Gly Leu Pro Gly Pro Glu Gly Phe	Leu Gln Glu Gln Ser Ala 215	220	225

Ile

<210> 152
 <211> 1027
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 1017, 1020
 <223> unknown base

<400> 152
 gcttcatttc tcccgactca gcttcccacc ctgggctttc cgagggtgott 50
 tcgccgctgt cccaccact gcagccatga tctccttaac ggacacgcag 100
 aaaattggaa tgggattaac aggatttgga gtgtttttcc tgttctttgg 150
 aatgattctc ttttttgaca aagcactact ggctattgga aatgttttat 200
 ttgtagccgg ctgggctttt gtaattggtt tagaagaac attcagattc 250
 ttcttccaaa aacataaaat gaaagctaca ggtttttttc tgggtggtgt 300

attttagtc cttattggtt ggcctttgat aggcattgato ttcgaaattt 350
 atggattttt tctcttggtc aggggcttct ttctgtgtgt tgttggttt 400
 attagaagag tgccagtcct tggatccctc cttaaattac ctggaattag 450
 atcatttgta gataaagttg gagaagcaa caatatggta taacaacaag 500
 tgaatttgaa gactcattta aaatattgtg ttatttataa agtcatttga 550
 agaattattca gcacaaaatt aaattacatg aaatagcttg taatgttctt 600
 tacaggagtt taaaacgtat agcctacaaa gtaccagcag caaattagca 650
 aagaagcagt gaaaacaggc ttctactcaa gtgaactaag aagaagtcag 700
 caagcaaact gagagaggtg aaatccatgt taatgatgct taagaaactc 750
 ttgaaggcta tttgtgtgtt ttttcacaa tgtgcgaaac tcagccatcc 800
 ttagagaact gtggtgcctg tttcttttct ttttattttg aaggctcagg 850
 agcatccata ggcatttgct ttttagaagt gtccactgca atggcaaaaa 900
 tattttccagt tgcactgtat ctctggaagt gatgcatgaa ttcgattgga 950
 ttgtgtcatt ttaaagtatt aaaaccaagg aaacccaat tttgatgtat 1000
 ggattacttt ttttgngcn cagggcc 1027

<210> 153
 <211> 138
 <212> PRT
 <213> Homo sapiens

<220>
 <221> N-myristoylation Sites
 <222> 11-16, 51-56 and 116-121
 <223> N-myristoylation Sites.

<220>
 <221> Transmembrane domains
 <222> 12-30, 33-52, 69-89 and 93-109
 <223> Transmembrane domains

<220>
 <221> Aminoacyl-transfer RNA Synthetases.
 <222> 49-59
 <223> Aminoacyl-transfer RNA synthetases class-II protein.

<400> 153
 Met Ile Ser Leu Thr Asp Thr Gln Lys Ile Gly Met Gly Leu Thr
 1 5 10 15
 Gly Phe Gly Val Phe Phe Leu Phe Phe Gly Met Ile Leu Phe Phe
 20 25 30
 Asp Lys Ala Leu Leu Ala Ile Gly Asn Val Leu Phe Val Ala Gly
 35 40 45
 Leu Ala Phe Val Ile Gly Leu Glu Arg Thr Phe Arg Phe Phe Phe
 50 55 60

Gln	Lys	His	Lys	Met	Lys	Ala	Thr	Gly	Phe	Phe	Leu	Gly	Gly	Val
				65					70					75
Phe	Val	Val	Leu	Ile	Gly	Trp	Pro	Leu	Ile	Gly	Met	Ile	Phe	Glu
			80						85					90
Ile	Tyr	Gly	Phe	Phe	Leu	Leu	Phe	Arg	Gly	Phe	Phe	Pro	Val	Val
			95						100					105
Val	Gly	Phe	Ile	Arg	Arg	Val	Pro	Val	Leu	Gly	Ser	Leu	Leu	Asn
			110						115					120
Leu	Pro	Gly	Ile	Arg	Ser	Phe	Val	Asp	Lys	Val	Gly	Glu	Ser	Asn
			125						130					135

Asn Met Val

<210> 154
 <211> 405
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 66
 <223> unknown base

<400> 154
 gaagacgtgg cggctctcgc ctgggctgtt tccggcttc atttctccg 50
 actcagcttc ccacntggg ctttcgagg tgctttgcc gctgtccca 100
 ccaactgcagc catgatctcc ttaacggaca cgcagaaat tggatggga 150
 ttaaccggat ttggagtgtt tttcctgttc ttggaatga ttctctttt 200
 tgacaaagca ctactggcta ttggaaatgt tttatttga gccggttgg 250
 cttttgtaat tggtttagaa agaacattca gattcttctt caaaaacat 300
 aaaaagaaag ctacaggttt ttttctgggt ggtgtatttg tagtccttat 350
 tggttggcct ttgataggca tgatcttcga aatttatgga tttttctct 400
 tgttc 405

<210> 155
 <211> 1781
 <212> DNA
 <213> Homo sapiens

<400> 155
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 ccatgtgcc aagggtgcc ggaaggagac gccttctga gtcttgatc 100
 tttcttctt ctggaatct ttgactgtgg gtagttattt atttctgaat 150
 aagagcgtcc acgcatcatg gacctcggg gactgctgaa gtctcagttc 200
 ctgtgccacc tggcttctg ctacgtcttt attgcctcag ggctaatacat 250

caacaccatt cagctcttca ctctcctcct ctggccatt aacaagcagc 300
 tcttccgaa gatcaactgc agactgtcct attgcatctc aagccagctg 350
 gtgatgtgc tggagtgtg gtcgggacag gaatgcacca tcttcacgga 400
 cccgcgcgc tacctcaagt atgggaagga aaatgccatc gtggttctca 450
 accacaagtt tgaaattgac tttctgtgtg gctggagcct gtcogaacgc 500
 tttgggtgtg tagggggctc caaggtcctg gccagaaga agctggccta 550
 tgtccaatt atcggctgga tgtgtactt caccgagatg gtcttctgtt 600
 cgcgcaagtg ggagcaggat cgcaagacgg ttgccaccag tttgcagcac 650
 ctccgggact accccgagaa gtatttttct ctgattcact gtgagggac 700
 acggttcacg gagaagaagc atgagatcag catgcagggt gcccgggcca 750
 aggggtctgc tcgcctcaag catcacctgt tgccacgaac caagggcttc 800
 gccatcaccg tgaggagctt gagaaatgta gtttcagctg tatatgactg 850
 tacactcaat ttcagaaata atgaaaatcc aacctgtctg ggagtcttaa 900
 acggaagaa ataccatgca gatttgtatg ttaggaggat cccactggaa 950
 gacatccctg aagacgatga cagtgctcgc gcttggtgc acaagctota 1000
 ccaggagaag gatgccttcc agggaggata ctacaggacg ggcaccttcc 1050
 cagagacgcc catggtgccc ccccgggcgc cctggaccct cgtgaactgg 1100
 ctgttttggg cctcgtggt gctctacctt ttcttccagt tccgtgtcag 1150
 catgatcagg agcgggtctt ccctgacgct ggccagcttc atcctcgtct 1200
 tctttgtggc ctccgtgga gttcgatgga tgattggtg gacggaaatt 1250
 gacaagggtc ctgcctacgg caactctgac agcaagcaga aactgaatga 1300
 ctgactcagg gaggtgtcac catccgaagg gaaccttggg gaactggtgg 1350
 cctctgcata tctccttag tgggacacgg tgacaaaggc tgggtgagcc 1400
 cctgctgggc acggcgggaag tcacgacctc tccagccagg gagtctggtc 1450
 tcaagcccg atggggagga agatgttttg taatcttttt ttcccatgt 1500
 gctttagtgg gctttggtt tcttttgtg cagtggtgtg tgagaatggc 1550
 tgtgtggtga gtgtgaactt tgtctgtga tcatagaaa ggatatttag 1600
 gctgcagggg agggcagggc tggggaccga aggggacaag ttcccccttc 1650
 atcctttggt gctgagtttt ctgtaacctt tggttgccag agataaagt 1700
 aaaagtgtt taggtgagat gactaaatta tgctccaag aaaaaaaaaat 1750
 taaagtgtt tctgggtca aaaaaaaaaa a 1781

<210> 156

<211> 378
 <212> PRT
 <213> Homo sapiens

<400> 156

Met	Asp	Leu	Ala	Gly	Leu	Leu	Lys	Ser	Gln	Phe	Leu	Cys	His	Leu
1				5					10					15
Val	Phe	Cys	Tyr	Val	Phe	Ile	Ala	Ser	Gly	Leu	Ile	Ile	Asn	Thr
				20					25					30
Ile	Gln	Leu	Phe	Thr	Leu	Leu	Leu	Trp	Pro	Ile	Asn	Lys	Gln	Leu
				35					40					45
Phe	Arg	Lys	Ile	Asn	Cys	Arg	Leu	Ser	Tyr	Cys	Ile	Ser	Ser	Gln
				50					55					60
Leu	Val	Met	Leu	Leu	Glu	Trp	Trp	Ser	Gly	Thr	Glu	Cys	Thr	Ile
				65					70					75
Phe	Thr	Asp	Pro	Arg	Ala	Tyr	Leu	Lys	Tyr	Gly	Lys	Glu	Asn	Ala
				80					85					90
Ile	Val	Val	Leu	Asn	His	Lys	Phe	Glu	Ile	Asp	Phe	Leu	Cys	Gly
				95					100					105
Trp	Ser	Leu	Ser	Glu	Arg	Phe	Gly	Leu	Leu	Gly	Gly	Ser	Lys	Val
				110					115					120
Leu	Ala	Lys	Lys	Glu	Leu	Ala	Tyr	Val	Pro	Ile	Ile	Gly	Trp	Met
				125					130					135
Trp	Tyr	Phe	Thr	Glu	Met	Val	Phe	Cys	Ser	Arg	Lys	Trp	Glu	Gln
				140					145					150
Asp	Arg	Lys	Thr	Val	Ala	Thr	Ser	Leu	Gln	His	Leu	Arg	Asp	Tyr
				155					160					165
Pro	Glu	Lys	Tyr	Phe	Phe	Leu	Ile	His	Cys	Glu	Gly	Thr	Arg	Phe
				170					175					180
Thr	Glu	Lys	Lys	His	Glu	Ile	Ser	Met	Gln	Val	Ala	Arg	Ala	Lys
				185					190					195
Gly	Leu	Pro	Arg	Leu	Lys	His	His	Leu	Leu	Pro	Arg	Thr	Lys	Gly
				200					205					210
Phe	Ala	Ile	Thr	Val	Arg	Ser	Leu	Arg	Asn	Val	Val	Ser	Ala	Val
				215					220					225
Tyr	Asp	Cys	Thr	Leu	Asn	Phe	Arg	Asn	Asn	Glu	Asn	Pro	Thr	Leu
				230					235					240
Leu	Gly	Val	Leu	Asn	Gly	Lys	Lys	Tyr	His	Ala	Asp	Leu	Tyr	Val
				245					250					255
Arg	Arg	Ile	Pro	Leu	Glu	Asp	Ile	Pro	Glu	Asp	Asp	Asp	Glu	Cys
				260					265					270
Ser	Ala	Trp	Leu	His	Lys	Leu	Tyr	Gln	Glu	Lys	Asp	Ala	Phe	Gln
				275					280					285
Glu	Glu	Tyr	Tyr	Arg	Thr	Gly	Thr	Phe	Pro	Glu	Thr	Pro	Met	Val

				290						295						300
Pro	Pro	Arg	Arg	Pro	Trp	Thr	Leu	Val	Asn	Trp	Leu	Phe	Trp	Ala		
				305					310					315		
Ser	Leu	Val	Leu	Tyr	Pro	Phe	Phe	Gln	Phe	Leu	Val	Ser	Met	Ile		
				320					325					330		
Arg	Ser	Gly	Ser	Ser	Leu	Thr	Leu	Ala	Ser	Phe	Ile	Leu	Val	Phe		
				335					340					345		
Phe	Val	Ala	Ser	Val	Gly	Val	Arg	Trp	Met	Ile	Gly	Val	Thr	Glu		
				350					355					360		
Ile	Asp	Lys	Gly	Ser	Ala	Tyr	Gly	Asn	Ser	Asp	Ser	Lys	Gln	Lys		
				365					370					375		

Leu Asn Asp

<210> 157
 <211> 1849
 <212> DNA
 <213> Homo sapiens

<400> 157
 ctgaggcggc ggtagcatgg agggggagag tacgtcggcg gtgctctcgg 50
 gctttgtgct cggcgcactc gctttccagc acctcaacac ggactcggac 100
 acggaaggtt ttcttcttgg ggaagtaaaa ggtgaagcca agaacagcat 150
 tactgattcc caaatggatg atgttgaaagt tgtttataca attgacattc 200
 agaaatatat tccatgctat cagcttttta gcttttataa ttcttcaggc 250
 gaagtaaatg agcaagcact gaagaaaata ttatcaaata tcaaaaagaa 300
 tgtggtaggt tggtaacaaat tccgtcgtca ttcagatcag atcatgacgt 350
 ttagagagag gctgcttcac aaaaacttgc aggagcattt ttcaaacca 400
 gacctgtgtt ttctgtatt aacaccaagt ataataacag aaagctgctc 450
 tactcatoga ctggaacatt ccttatataa acctcaaaaa ggactttttc 500
 acagggtacc tttagtgggt gccaatctgg gcattgtcga acaactgggt 550
 tataaaactg tatcaggttc ctgtatgtcc actggtttta gccgagcagt 600
 acaaacacac agctctaaat tttttgaaga agatggatcc ttaaggagg 650
 tacataagat aaatgaaatg tatgcttcac tacaagagga attaaagagt 700
 atatgcaaaa aagtggaga cagtgaacaa gcagtagata aactagtaaa 750
 ggatgtaaac agattaaac gagaattga gaaaaggaga ggagcacaga 800
 ttcaggcagc aagagagaag aacatccaaa aagaccctca ggagaacatt 850
 ttctcttgtc aggcattacg gacctttttt ccaaatcttg aatttcttca 900
 ttcattgtgt atgtctttaa aaaatagaca tgtttctaaa agtagctgta 950

actacaacca ccatctcgat gtagtagaca atctgacctt aatggtagaa 1000
 cacactgaca ttcttgaagc tagtccagct agtacaccac aaatcattaa 1050
 gcataaagcc ttagacttag atgacagatg gcaattcaag agatctcggg 1100
 tgttagatag acaagacaaa cgatctaaag caaatactgg tagtagtaac 1150
 caagataaag catccaaaat gagcagccca gaaacagatg aagaaattga 1200
 aaagatgaag ggttttggtg aatattcacg gtctcctaca ttttgatcct 1250
 ttttaacctta caaggagatt tttttatttg gctgatgggt aaagccaaac 1300
 atttctattg tttttactat gttgagctac ttgcagtaag ttcatttggt 1350
 tttactatgt tcacctgttt gcagtaatac acagataaact cttagtgcac 1400
 ttacttcaca aagtactttt tcaaacaatca gatgctttta tttccaaacc 1450
 tttttttcac ctttactaa gttgttgagg ggaaggctta cacagacaca 1500
 ttctttagaa ttggaaaagt gagaccaggc acagtggctc acacctgtaa 1550
 tcccagcact tagggaagac aagtcaggag gattgattga agctaggagt 1600
 tagagaccag cctgggcaac gtattgagac catgtctatt aaaaaataaa 1650
 atggaaaagc aagaatagcc ttattttcaa aatatggaaa gaaatttata 1700
 tgaaaattta tctgagtcac taaaattctc ctttaagtgt acttttttag 1750
 aagtacatta tggctagagt tgccagataa aatgctggat atcatgcaat 1800
 aaatttgcaa aacatcatct aaaattttaa aaaaaaaaaa aaaaaaaaaa 1849

<210> 158
 <211> 409
 <212> PRT
 <213> Homo sapiens

<400> 158
 Met Glu Gly Glu Ser Thr Ser Ala Val Leu Ser Gly Phe Val Leu
 1 5 10 15
 Gly Ala Leu Ala Phe Gln His Leu Asn Thr Asp Ser Asp Thr Glu
 20 25 30
 Gly Phe Leu Leu Gly Glu Val Lys Gly Glu Ala Lys Asn Ser Ile
 35 40 45
 Thr Asp Ser Gln Met Asp Asp Val Glu Val Val Tyr Thr Ile Asp
 50 55 60
 Ile Gln Lys Tyr Ile Pro Cys Tyr Gln Leu Phe Ser Phe Tyr Asn
 65 70 75
 Ser Ser Gly Glu Val Asn Glu Gln Ala Leu Lys Lys Ile Leu Ser
 80 85 90
 Asn Val Lys Lys Asn Val Val Gly Trp Tyr Lys Phe Arg Arg His
 95 100 105

Ser Asp Gln Ile	Met Thr Phe Arg Glu Arg	Leu Leu His Lys Asn
110	115	120
Leu Gln Glu His	Phe Ser Asn Gln Asp	Leu Val Phe Leu Leu Leu
125	130	135
Thr Pro Ser Ile	Ile Thr Glu Ser Cys Ser	Thr His Arg Leu Glu
140	145	150
His Ser Leu Tyr	Lys Pro Gln Lys Gly	Leu Phe His Arg Val Pro
155	160	165
Leu Val Val Ala	Asn Leu Gly Met Ser	Glu Gln Leu Gly Tyr Lys
170	175	180
Thr Val Ser Gly	Ser Cys Met Ser Thr	Gly Phe Ser Arg Ala Val
185	190	195
Gln Thr His Ser	Ser Lys Phe Phe Glu	Glu Asp Gly Ser Leu Lys
200	205	210
Glu Val His Lys	Ile Asn Glu Met Tyr	Ala Ser Leu Gln Glu Glu
215	220	225
Leu Lys Ser Ile	Cys Lys Lys Val Glu	Asp Ser Glu Gln Ala Val
230	235	240
Asp Lys Leu Val	Lys Asp Val Asn Arg	Leu Lys Arg Glu Ile
245	250	255
Lys Arg Arg Gly	Ala Gln Ile Gln Ala	Ala Arg Glu Lys Asn Ile
260	265	270
Gln Lys Asp Pro	Gln Glu Asn Ile Phe	Leu Cys Gln Ala Leu Arg
275	280	285
Thr Phe Phe Pro	Asn Ser Glu Phe Leu	His Ser Cys Val Met Ser
290	295	300
Leu Lys Asn Arg	His Val Ser Lys Ser	Ser Cys Asn Tyr Asn His
305	310	315
His Leu Asp Val	Val Asp Asn Leu Thr	Leu Met Val Glu His Thr
320	325	330
Asp Ile Pro Glu	Ala Ser Pro Ala Ser	Thr Pro Gln Ile Ile Lys
335	340	345
His Lys Ala Leu	Asp Leu Asp Asp Arg	Trp Gln Phe Lys Arg Ser
350	355	360
Arg Leu Leu Asp	Thr Gln Asp Lys Arg	Ser Lys Ala Asn Thr Gly
365	370	375
Ser Ser Asn Gln	Asp Lys Ala Ser Lys	Met Ser Ser Pro Glu Thr
380	385	390
Asp Glu Glu Ile	Glu Lys Met Lys Gly	Phe Gly Glu Tyr Ser Arg
395	400	405
Ser Pro Thr Phe		

<210> 159
<211> 2651
<212> DNA
<213> Homo sapiens

<400> 159
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cgccgcccac accctctcgc gtccccgcgg cgctgcccac ccttcctcc 150
ttccccgcgt ccccgctcgc cgggccagtc agcttgccgg gttcgctgcc 200
ccgcgaaacc ccgaggtcac cagcccgcgc ctctgcttcc ctgggcccgc 250
cgccgctcc acgcctcct tctcccctgg cccggcgccct ggcaccgggg 300
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cgctgctcgc cctcttccac caactccaac tccttctccc tccagctcca 400
ctcgctagtc ccgactccg ccagccctcg gcccgctgcc gttagcgccgc 450
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agatgtccct cgcaaatga agctccaggt tactcgtgct tttgtagcag 1150
cccgtacttt cgctcaaggc ttagcggttg cgggagatgt cgtgagcaag 1200
gtctccgtgg taaacccac agcccagtg acccatgccc tgttgaagat 1250
gatctactgc tcccactgcc ggggtctcgt gactgtgaag ccatgttaca 1300
actactgtc aaacatcatg agaggctgtt tggccaacca aggggactct 1350
gattttgaat ggaacaattt catagatgct atgctgatgg tggcagagag 1400
gctagagggg cctttcaaca ttgaatcgg catggatccc atcgatgtga 1450

agatttctga tgcattatg aacatgcag ataatagtgt tcaagtgtct 1500
 cagaaggttt tccagggatg tggaccccc aagccctcc cagctggacg 1550
 aatttctcgt tccatctctg aaagtgcctt cagtgtctgc ttcagaccac 1600
 atcaccccg ggaacgcca accacagcag ctggcactag ttggaccga 1650
 ctggttactg atgtcaagga gaaactgaaa caggccaaga aattctggtc 1700
 ctccctccg agcaacgttt gcaacgatga gaggatggct gcaggaaacg 1750
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 gcagtgcag gaaatggatt agccaaccag ggcaacaacc cagaggtcca 1850
 ggttgacacc agcaaacag acatactgat ccttcgtcaa atcatggctc 1900
 ttcgagtgat gaccagcaag atgaagaatg catacaatgg gaacgacgtg 1950
 gacttcttg atatcagta tgaaagtagt ggagaaggaa gtggaagtgg 2000
 ctgtgagtat cagcagtgcc cttcagagtt tgactacaat gccactgacc 2050
 atgctgggaa gagtgccaat gagaaagccg acagtgtctg tgcctgtcct 2100
 ggggcacagg cctacctct cactgtcttc tgcactctgt tctgtgttat 2150
 gcagagagag tggagataat tctcaaaact tgagaaaaag tgttcatcaa 2200
 aaagttaaaa ggcaccagtt atcacttttc taccatccta gtgactttgc 2250
 tttttaaatg aatggacaac aatgtacagt ttttactatg tggccactgg 2300
 ttttaagaagt gctgactttg ttttctcatt cagttttggg aggaaaaggg 2350
 actgtgcatt gagttggttc ctgctcccc aaaccatggt aaacgtggct 2400
 aacagtgtag gtacagaact atagttagtt gtgcatttgt gatattatca 2450
 ctctattatt tgtttgtatg tttttttctc atttcgtttg tgggtttttt 2500
 tttccaactg tgatctcgcc ttgtttctta caagcaaac agggctccct 2550
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 agcaggtttt atttatcatg ttatcttatt aaaagaaaa gcccaaaaag 2650
 c 2651

<210> 160
 <211> 556
 <212> PRT
 <213> Homo sapiens

<400> 160
 Met Ala Arg Phe Gly Leu Pro Ala Leu Leu Cys Thr Leu Ala Val
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 Leu Ser Ala Ala Leu Leu Ala Ala Glu Leu Lys Ser Lys Ser Cys
 20 25 30
 Ser Glu Val Arg Arg Leu Tyr Val Ser Lys Gly Phe Asn Lys Asn

35										40					45				
Asp	Ala	Pro	Leu	His	Glu	Ile	Asn	Gly	Asp	His	Leu	Lys	Ile	Cys					
				50					55					60					
Pro	Gln	Gly	Ser	Thr	Cys	Cys	Ser	Gln	Glu	Met	Glu	Glu	Lys	Tyr					
				65					70					75					
Ser	Leu	Gln	Ser	Lys	Asp	Asp	Phe	Lys	Ser	Val	Val	Ser	Glu	Gln					
				80					85					90					
Cys	Asn	His	Leu	Gln	Ala	Val	Phe	Ala	Ser	Arg	Tyr	Lys	Lys	Phe					
				95					100					105					
Asp	Glu	Phe	Phe	Lys	Glu	Leu	Leu	Glu	Asn	Ala	Glu	Lys	Ser	Leu					
				110					115					120					
Asn	Asp	Met	Phe	Val	Lys	Thr	Tyr	Gly	His	Leu	Tyr	Met	Gln	Asn					
				125					130					135					
Ser	Glu	Leu	Phe	Lys	Asp	Leu	Phe	Val	Glu	Leu	Lys	Arg	Tyr	Tyr					
				140					145					150					
Val	Val	Gly	Asn	Val	Asn	Leu	Glu	Glu	Met	Leu	Asn	Asp	Phe	Trp					
				155					160					165					
Ala	Arg	Leu	Leu	Glu	Arg	Met	Phe	Arg	Leu	Val	Asn	Ser	Gln	Tyr					
				170					175					180					
His	Phe	Thr	Asp	Glu	Tyr	Leu	Glu	Cys	Val	Ser	Lys	Tyr	Thr	Glu					
				185					190					195					
Gln	Leu	Lys	Pro	Phe	Gly	Asp	Val	Pro	Arg	Lys	Leu	Lys	Leu	Gln					
				200					205					210					
Val	Thr	Arg	Ala	Phe	Val	Ala	Ala	Arg	Thr	Phe	Ala	Gln	Gly	Leu					
				215					220					225					
Ala	Val	Ala	Gly	Asp	Val	Val	Ser	Lys	Val	Ser	Val	Val	Asn	Pro					
				230					235					240					
Thr	Ala	Gln	Cys	Thr	His	Ala	Leu	Leu	Lys	Met	Ile	Tyr	Cys	Ser					
				245					250					255					
His	Cys	Arg	Gly	Leu	Val	Thr	Val	Lys	Pro	Cys	Tyr	Asn	Tyr	Cys					
				260					265					270					
Ser	Asn	Ile	Met	Arg	Gly	Cys	Leu	Ala	Asn	Gln	Gly	Asp	Leu	Asp					
				275					280					285					
Phe	Glu	Trp	Asn	Asn	Phe	Ile	Asp	Ala	Met	Leu	Met	Val	Ala	Glu					
				290					295					300					
Arg	Leu	Glu	Gly	Pro	Phe	Asn	Ile	Glu	Ser	Val	Met	Asp	Pro	Ile					
				305					310					315					
Asp	Val	Lys	Ile	Ser	Asp	Ala	Ile	Met	Asn	Met	Gln	Asp	Asn	Ser					
				320					325					330					
Val	Gln	Val	Ser	Gln	Lys	Val	Phe	Gln	Gly	Cys	Gly	Pro	Pro	Lys					
				335					340					345					
Pro	Leu	Pro	Ala	Gly	Arg	Ile	Ser	Arg	Ser	Ile	Ser	Glu	Ser	Ala					

	350		355		360
Phe Ser Ala Arg	Phe Arg Pro His His	Pro Glu Glu Arg Pro Thr			
	365	370			375
Thr Ala Ala Gly	Thr Ser Leu Asp Arg	Leu Val Thr Asp Val Lys			
	380	385			390
Glu Lys Leu Lys	Gln Ala Lys Lys Phe	Trp Ser Ser Leu Pro Ser			
	395	400			405
Asn Val Cys Asn	Asp Glu Arg Met Ala	Ala Gly Asn Gly Asn Glu			
	410	415			420
Asp Asp Cys Trp	Asn Gly Lys Gly Lys	Ser Arg Tyr Leu Phe Ala			
	425	430			435
Val Thr Gly Asn	Gly Leu Ala Asn Gln	Gly Asn Asn Pro Glu Val			
	440	445			450
Gln Val Asp Thr	Ser Lys Pro Asp Ile	Leu Ile Leu Arg Gln Ile			
	455	460			465
Met Ala Leu Arg	Val Met Thr Ser Lys	Met Lys Asn Ala Tyr Asn			
	470	475			480
Gly Asn Asp Val	Asp Phe Phe Asp Ile	Ser Asp Glu Ser Ser Gly			
	485	490			495
Glu Gly Ser Gly	Ser Gly Cys Glu Tyr	Gln Gln Cys Pro Ser Glu			
	500	505			510
Phe Asp Tyr Asn	Ala Thr Asp His Ala	Gly Lys Ser Ala Asn Glu			
	515	520			525
Lys Ala Asp Ser	Ala Gly Val Arg Pro	Gly Ala Gln Ala Tyr Leu			
	530	535			540
Leu Thr Val Phe	Cys Ile Leu Phe Leu	Val Met Gln Arg Glu Trp			
	545	550			555

Arg

<210> 161
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 161
 ctccgtggta aacccacag ccc 23

<210> 162
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 162
tcacatcgat gggatccatg accg 24

<210> 163
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 163
ggtctcgtga ctgtgaagcc atgttacaac tactgtctcaa acatcatgag 50

<210> 164
<211> 870
<212> DNA
<213> Homo sapiens

<400> 164
ctcgccctca aatgggaacg ctggcctggg actaaagcat agaccaccag 50
gctgagtagc ctgacctgag tcattccccag ggatcaggag cctccagcag 100
ggaaaccttc attatattct tcaagcaact tacagctgca cgcacagttg 150
cgatgaaagt tetaatctct tccctcctcc tgttctgtgcc actaatgctg 200
atgtccatgg tctctagcag cctgaatcca ggggtcgcca gagccacag 250
ggaccgaggg caggcttcta ggagatggct ccaggaaggg ggccaagaat 300
gtgagtgcaa agattgggtc ctgagagccc cgagaagaaa attcatgaca 350
gtgtctgggc tgccaaagaa gcagtgtccc tgtgatcatt tcaagggcaa 400
tgtgaagaaa acaagacacc aaaggcacca cagaagacca aacaagcatt 450
ccagagcctg ccagcaattt ctcaacaat gtcagctaag aagctttgct 500
ctgcctttgt aggagctctg agcgcccact cttccaatta aacattctca 550
gccaagaaga cagttagcac acctaccaga cactcttctt ctcccacctc 600
actctccac tgtaccacc cctaaatcat tccagtgtgc tcaaaaagca 650
tgtttttcaa gatcattttg ttgtttgtc tctctagtgt cttcttctct 700
cgtagctctt agcctgtgcc ctccccttac ccaggcttag gcttaattac 750
ctgaaagatt ccaggaaact gtagcttctt agctagtgtc atttaacctt 800
aatgcaatc aggaagtag caaacagaag tcaataaata tttttaaatg 850
tcaaaaaaaaa aaaaaaaaaa 870

<210> 165
<211> 119
<212> PRT
<213> Homo sapiens

<400> 165
Met Lys Val Leu Ile Ser Ser Leu Leu Leu Leu Pro Leu Met

1	5	10	15
Leu Met Ser Met	Val Ser Ser Ser	Leu Asn	Pro Gly Val Ala Arg
	20	25	30
Gly His Arg Asp	Arg Gly Gln Ala	Ser Arg Arg Trp	Leu Gln Glu
	35	40	45
Gly Gly Gln Glu	Cys Glu Cys Lys	Asp Trp Phe	Leu Arg Ala
	50	55	60
Arg Arg Lys Phe	Met Thr Val Ser	Gly Leu Pro	Lys Lys Gln Cys
	65	70	75
Pro Cys Asp His	Phe Lys Gly Asn	Val Lys Lys Thr	Arg His Gln
	80	85	90
Arg His His Arg	Lys Pro Asn Lys	His Ser Arg Ala	Cys Gln Gln
	95	100	105
Phe Leu Lys Gln	Cys Gln Leu Arg	Ser Phe Ala Leu	Pro Leu
	110	115	

<210> 166
 <211> 551
 <212> DNA
 <213> Homo sapiens

<400> 166
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 tattctctgac ctgctatgca gacgacaaac cagacaagcc agacgacaag 100
 ccagacgact cgggcaaaga cccaaagcca gacttcccca aattcctaag 150
 cctcctgggc acagagatca ttgagaatgc agtcgagttc atcctccgct 200
 ccatgtccag gagcacagga tttatggaat ttgatgataa tgaaggaaaa 250
 cattcatcaa agtgacatcc tcaggacaca cccatgtggc tcttggacaa 300
 tccaagagca gccaaatcct gcttttccag ttgggtcca caagtctccc 350
 aggacagagc cctcaaagca actcccaacg agttotcagg attcaggctc 400
 tggcttcaac caaacagaac tcattttgaa caccctgact gcatttttgc 450
 ttttagaaa ttagaataaa tatggcgctt tgggatcaca tagttgatgg 500
 agaggaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 550
 a 551

<210> 167
 <211> 87
 <212> FRT
 <213> Homo sapiens

<400> 167
 Met Ala Val Leu Val Leu Arg Leu Thr Val Val Leu Gly Leu Leu
 1 5 10 15
 Val Leu Phe Leu Thr Cys Tyr Ala Asp Asp Lys Pro Asp Lys Pro

20	25	30
Asp Asp Lys Pro Asp Asp Ser Gly Lys Asp Pro Lys Pro Asp Phe		
35	40	45
Pro Lys Phe Leu Ser Leu Leu Gly Thr Glu Ile Ile Glu Asn Ala		
50	55	60
Val Glu Phe Ile Leu Arg Ser Met Ser Arg Ser Thr Gly Phe Met		
65	70	75
Glu Phe Asp Asp Asn Glu Gly Lys His Ser Ser Lys		
80	85	

<210> 168
 <211> 1371
 <212> DNA
 <213> Homo sapiens

<400> 168
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 gcagctgctg gtgctgcttc ttaccctgcc cctgcacctc atggctctgc 150
 tgggctgctg gcagcccoctg tgcaaaagct acttccccta cctgatggcc 200
 gtgctgactc ccaagagcaa ccgcaagatg gagagcaaga aacgggagct 250
 cttcagccag ataaaggggc ttacaggagc ctccgggaaa gtggccctac 300
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 tgcagggtca cctgcctaga cccaaatccc cactttgaga agttcctgac 400
 aaagagcatg gctgagaaca ggcacctcca atatgagcgg tttgtggtg 450
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 gtctgcactc tgggtgctg ctctgtgcag agcccaagga aggtcctgca 550
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 agcccccctc cttgaagtgg ctacctgttg ggcccacat catgggaaag 800
 gctgtcaaac aatctttccc aagctccaag gcactcattt gctcctccc 850
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 gagggaccta gcagaatgag agaagacatt catgtaccac ctactagtcc 950
 ctctctcccc aacctctgcc agggcaatct ctaacttcaa tcccgccttc 1000
 gacagtga aaagctctact tctacgtga cccagggagg aaacactagg 1050
 accctgttgt atcctcaact gcaagtttct ggactagtct cccaacgttt 1100

Pro Pro Pro Leu Lys Trp Leu Pro Val Gly Pro His Ile Met Gly
 230 235 240

Lys Ala Val Lys Gln Ser Phe Pro Ser Ser Lys Ala Leu Ile Cys
 245 250 255

Ser Phe Pro Ser Leu Gln Leu Glu Gln Ala Thr His Gln Pro Ile
 260 265 270

Tyr Leu Pro Leu Arg Gly Thr
 275

<210> 170
 <211> 1621
 <212> DNA
 <213> Homo sapiens

<400> 170
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 agcttctgta gataagggtt aaaaactaat atttatatga cagaagaaaa 150
 agatgtcatt ccgtaaagta aacatcatca tcttggtcct ggctgttgct 200
 ctcttcttac tggttttgca ccataacttc ctcagcttga gcagtttggt 250
 aaggaatgag gttacagatt caggaattgt agggcctcaa cctatagact 300
 ttgtcccaaa tgctctccga catgcagtag atgggagaca agaggagatt 350
 cctgtggtca tcgctgcac tgaagacagg cttggggggg ccattgcagc 400
 tataaacagc attcagcaca acaactgctc caatgtgatt ttctacattg 450
 ttactctcaa caatacagca gaccatctcc ggtcctggct caacagtgat 500
 tccttgaaaa gcacagata caaaattgtc aattttgacc ctaaaacttt 550
 ggaaggaaaa gtaaaggagg atcctgacca gggggaatcc atgaaacctt 600
 taacctttgc aaggttctac ttgccaattc tggttccag cgaaagaag 650
 gccatataca tggatgatga tgtaattgtg caagtgata ttcttgccct 700
 ttacaataca gcactgaagc caggacatgc agctgcattt tcagaagatt 750
 gtgattcagc ctctactaaa gttgtcatcc gtggagcagg aaaccagta 800
 aattacattg gctatcttga ctataaaaag gaaagaattc gtaagcttct 850
 catgaaagcc agcacttgct catttaatcc tggagttttt gttgcaaac 900
 tgacggaatg gaaacgacag aatataacta accaactgga aaaatggatg 950
 aaactcaatg tagaagaggg actgtatagc agaacctgg ctggtagcat 1000
 cacaacacct cctctgctta tcgtatttta tcaacagcac tctaccatcg 1050
 atcctatgtg gaatgtccgc caccttggtt ccagtgctgg aaaacgatat 1100
 tcacctcagt ttgtaaaggc tgccaagtta ctccattgga atggacattt 1150

gaagccatgg ggaaggactg cttcatatac tgaatgtttg gaaaaatggt 1200
 atattccaga cccaacaggc aaattcaacc taatccgaag atataccgag 1250
 atctcaaaca taaagtgaag cagaattga actgtaagca agcatttctc 1300
 aggaagtctt ggaagatagc atgcatggga agtaacagtt gctaggcttc 1350
 aatgcctatc ggtagcaagc catggaaaaa gatgtgtcag ctaggtaaag 1400
 atgacaaact gccctgtctg gcagtcagct tcccagacag actatagact 1450
 ataaatatgt ctccatctgc cttaccaagt gttttcttac tacaatgctg 1500
 aatgactgga aagaagaact gatatggcta gttcagctag ctggtaacaga 1550
 taattcaaaa ctgctgttgg ttttaatttt gtaacctgtg gcctgatctg 1600
 taaataaaac ttacattttt c 1621

<210> 171

<211> 371

<212> PRT

<213> Homo sapiens

<400> 171

Met	Ser	Phe	Arg	Lys	Val	Asn	Ile	Ile	Ile	Leu	Val	Leu	Ala	Val	1	5	10	15
Ala	Leu	Phe	Leu	Leu	Val	Leu	His	His	Asn	Phe	Leu	Ser	Leu	Ser	20	25	30	
Ser	Leu	Leu	Arg	Asn	Glu	Val	Thr	Asp	Ser	Gly	Ile	Val	Gly	Pro	35	40	45	
Gln	Pro	Ile	Asp	Phe	Val	Pro	Asn	Ala	Leu	Arg	His	Ala	Val	Asp	50	55	60	
Gly	Arg	Gln	Glu	Glu	Ile	Pro	Val	Val	Ile	Ala	Ala	Ser	Glu	Asp	65	70	75	
Arg	Leu	Gly	Gly	Ala	Ile	Ala	Ala	Ile	Asn	Ser	Ile	Gln	His	Asn	80	85	90	
Thr	Arg	Ser	Asn	Val	Ile	Phe	Tyr	Ile	Val	Thr	Leu	Asn	Asn	Thr	95	100	105	
Ala	Asp	His	Leu	Arg	Ser	Trp	Leu	Asn	Ser	Asp	Ser	Leu	Lys	Ser	110	115	120	
Ile	Arg	Tyr	Lys	Ile	Val	Asn	Phe	Asp	Pro	Lys	Leu	Leu	Glu	Gly	125	130	135	
Lys	Val	Lys	Glu	Asp	Pro	Asp	Gln	Gly	Glu	Ser	Met	Lys	Pro	Leu	140	145	150	
Thr	Phe	Ala	Arg	Phe	Tyr	Leu	Pro	Ile	Leu	Val	Pro	Ser	Ala	Lys	155	160	165	
Lys	Ala	Ile	Tyr	Met	Asp	Asp	Asp	Val	Ile	Val	Gln	Gly	Asp	Ile	170	175	180	
Leu	Ala	Leu	Tyr	Asn	Thr	Ala	Leu	Lys	Pro	Gly	His	Ala	Ala	Ala				

	185	190	195
Phe Ser Glu Asp	Cys Asp Ser Ala Ser	Thr Lys Val Val Ile	Arg
	200	205	210
Gly Ala Gly Asn	Gln Tyr Asn Tyr Ile	Gly Tyr Leu Asp Tyr	Lys
	215	220	225
Lys Glu Arg Ile	Arg Lys Leu Ser Met	Lys Ala Ser Thr Cys	Ser
	230	235	240
Phe Asn Pro Gly	Val Phe Val Ala Asn	Leu Thr Glu Trp Lys	Arg
	245	250	255
Gln Asn Ile Thr	Asn Gln Leu Glu Lys	Trp Met Lys Leu Asn	Val
	260	265	270
Glu Glu Gly Leu	Tyr Ser Arg Thr Leu	Ala Gly Ser Ile Thr	Thr
	275	280	285
Pro Pro Leu Leu	Ile Val Phe Tyr Gln	Gln His Ser Thr Ile	Asp
	290	295	300
Pro Met Trp Asn	Val Arg His Leu Gly	Ser Ser Ala Gly Lys	Arg
	305	310	315
Tyr Ser Pro Gln	Phe Val Lys Ala Ala	Lys Leu Leu His Trp	Asn
	320	325	330
Gly His Leu Lys	Pro Trp Gly Arg Thr	Ala Ser Tyr Thr Asp	Val
	335	340	345
Trp Glu Lys Trp	Tyr Ile Pro Asp Pro	Thr Gly Lys Phe Asn	Leu
	350	355	360
Ile Arg Arg Tyr	Thr Glu Ile Ser Asn	Ile Lys	
	365	370	

<210> 172
 <211> 585
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 71, 76, 86, 91, 162, 220, 269, 281
 <223> unknown base

<400> 172
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 aggttacaga ttcaggaatt ntagnccctc aacctntaga ntttgtccca 100
 aatgttctcc gacatgcagt agatgggaga caagaggaga ttctgtggt 150
 catcgctgca tntgaagaca ggcttggggg ggccattgca gctataaaca 200
 gcattcagca caacactcgn tccaatgtga ttttctacat tgttactctc 250
 aacaatacag cagacctatnt ccggtcctgg ntcaacagtgt attcctgaa 300
 aagcatcaga tacaaaattg tcaattttga ccctaaactt ttggaaggaa 350

aagtaaagga ggatcctgac cagggggaat ccatgaaacc tttaaccttt 400
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catggatgat gatgtaattg tgcaagggtga tattcttggc ctttacaata 500
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<210> 173
<211> 1866
<212> DNA
<213> Homo sapiens

<400> 173
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aacgcgggcg gccagacaac gggctgggct ccggggcctg cggcgcgggc 150
gctgagctgg cagggcgggt cggggcgcgg gctgcacccg catctcctcc 200
atcgctgca gtaaggcgcg ccgcggcgag cctttgaggg gaacgacttg 250
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tcacatcact ttccgatcac ttcaaagtgg ttaaaaaacta atatttatat 350
gacagaagaa aaagatgtca ttccgtaaaag taaacatcat catcttggtc 400
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 aaaaaaaaa aaaaaa 1866

<210> 174
 <211> 823
 <212> DNA
 <213> Homo sapiens

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 ctcaccattg aggcagctcc actgtctgtg ctggctctgag ggtgctgcct 150
 gtcattgggg cagccatctc ccagggggcc ctcctcgcca tcgtctgcaa 200
 cggctctcgtg ggcttcttgc tgctgctgct ctgggtcacc ctctgctggg 250
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 actccagccc tggcccctgt cctgagaagg cccaccacc ccagaagccc 350
 agccatgaag gcagctacct gctgcagccc tgaaggcccc tggcctagcc 400
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 gagccagggc catctggaact atgctccatc ccaagggcca aggtcaggg 650
 gccgggtcca ctctttccct aggctgagca cctctaggcc ctctaggttg 700
 gggaagcaaa ctggaacca ttgcaataat aggagggtgt ccaggctggg 750

cccccccct ggtcctccca gtgtttgctg gataataaat ggaactatgg 800

ctctaaaaaa aaaaaaaaaa aaa 823

<210> 175

<211> 87

<212> PRT

<213> Homo sapiens

<400> 175

Met Gly Ala Ala Ile Ser Gln Gly Ala Leu Ile Ala Ile Val Cys
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Asn Gly Leu Val Gly Phe Leu Leu Leu Leu Trp Val Ile Leu
20 25 30

Cys Trp Ala Cys His Ser Arg Leu Pro Thr Leu Thr Leu Ser Leu
35 40 45

Asn Pro Val Pro Thr Pro Ala Leu Ala Pro Val Leu Arg Arg Pro
50 55 60

His His Pro Arg Ser Pro Ala Met Lys Ala Ala Thr Cys Cys Ser
65 70 75

Pro Glu Gly Pro Trp Pro Ser Leu Glu Pro Arg Thr
80 85

<210> 176

<211> 1660

<212> DNA

<213> Homo sapiens

<400> 176

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atgatgttga caccctccac cgaattctaa gtggaatcat gtcgggaaga 200

gatacaatcc ttggcctgtg tatcctcgca ttgacctgtg ctttggccat 250

gatgtttacc ttcagattca tcaccacct tctggttoac attttcattt 300

cattggttat tttgggattg ttgtttgtct gcggtgtttt atggtggctg 350

tattatgaact ataccaacga cctcagcata gaattggaca cagaaaggga 400

aaatatgaag tgcgtgctgg ggtttgctat cgtatccaca ggcatacagg 450

cagtgtgctc cgtcttgatt ttgtttctca gaaagagaat aaaattgaca 500

gttgagcttt tccaaatcac aaataaagcc atcagcagtg ctcccttcc 550

gtgtttccag ccactgtgga catttgccat ctcattttc ttctgggtcc 600

tctgggtggc tgtgtgtgctg agcctgggaa ctcgaggagc tgcccagggt 650

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 aaagaacagc agcatggtgc attgtccagg tacctgttcc gatgctgcta 1000
 ctgctgtttc tgggtgtctt acaataacct gctccatctc aaccagaatg 1050
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 ctgctttgga gacttcaata tttttctagg aaagggtgta gtggtgtgtt 1200
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 caatgcaagg gcacagcagg acaagcactc attaaggaat gaggagggaa 1500
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<210> 177
 <211> 445
 <212> PRT
 <213> Homo sapiens

<400> 177
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 20 25 30
 Leu Leu Val His Ile Phe Ile Ser Leu Val Ile Leu Gly Leu Leu
 35 40 45
 Phe Val Cys Gly Val Leu Trp Trp Leu Tyr Tyr Asp Tyr Thr Asn
 50 55 60
 Asp Leu Ser Ile Glu Leu Asp Thr Glu Arg Glu Asn Met Lys Cys
 65 70 75
 Val Leu Gly Phe Ala Ile Val Ser Thr Gly Ile Thr Ala Val Leu
 80 85 90
 Leu Val Leu Ile Phe Val Leu Arg Lys Arg Ile Lys Leu Thr Val

	95	100	105
Glu Leu Phe Gln	Ile Thr Asn Lys Ala 110	Ile Ser Ser Ala Pro Phe 115	
Leu Leu Phe Gln	Pro Leu Trp Thr Phe 125	Ala Ile Leu Ile Phe Phe 130	
Trp Val Leu Trp	Val Ala Val Leu Leu 140	Ser Leu Gly Thr Ala Gly 145	
Ala Ala Gln Val	Met Glu Gly Gly Gln 155	Val Glu Tyr Lys Pro Leu 160	
Ser Gly Ile Arg	Tyr Met Trp Ser Tyr 170	His Leu Ile Gly Leu Ile 175	
Trp Thr Ser Glu	Phe Ile Leu Ala Cys 185	Gln Gln Met Thr Ile Ala 190	
Gly Ala Val Val	Thr Cys Tyr Phe Asn 200	Arg Ser Lys Asn Asp Pro 205	
Pro Asp His Pro	Ile Leu Ser Ser Leu 215	Ser Ile Leu Phe Phe Tyr 220	
His Gln Gly Thr	Val Val Lys Gly Ser 230	Phe Leu Ile Ser Val Val 235	
Arg Ile Pro Arg	Ile Ile Val Met Tyr 245	Met Gln Asn Ala Leu Lys 250	
Glu Gln Gln His	Gly Ala Leu Ser Arg 260	Tyr Leu Phe Arg Cys Cys 265	
Tyr Cys Cys Phe	Trp Cys Leu Asp Lys 275	Tyr Leu Leu His Leu Asn 280	
Gln Asn Ala Tyr	Thr Thr Thr Ala Ile 290	Asn Gly Thr Asp Phe Cys 295	
Thr Ser Ala Lys	Asp Ala Phe Lys Ile 305	Leu Ser Lys Asn Ser Ser 310	
His Phe Thr Ser	Ile Asn Cys Phe Gly 320	Asp Phe Ile Ile Phe Leu 325	
Gly Lys Val Leu	Val Val Cys Phe Thr 335	Val Phe Gly Gly Leu Met 340	
Ala Phe Asn Tyr	Asn Arg Ala Phe Gln 350	Val Trp Ala Val Pro Leu 355	
Leu Leu Val Ala	Phe Phe Ala Tyr Leu 365	Val Ala His Ser Phe Leu 370	
Ser Val Phe Glu	Thr Val Leu Asp Ala 380	Leu Phe Leu Cys Phe Ala 385	
Val Asp Leu Glu	Thr Asn Asp Gly Ser 395	Ser Glu Lys Pro Tyr Phe 400	
Met Asp Gln Glu	Phe Leu Ser Phe Val 405	Lys Arg Ser Asn Lys Leu 410	

	410		415		420
Asn Asn Ala Arg	Ala Gln Gln Asp Lys	His Ser Leu Arg Asn	Glu		
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Glu Gly Thr Glu	Leu Gln Ala Ile Val Arg				
	440		445		

<210> 178
 <211> 2773
 <212> DNA
 <213> Homo sapiens

<400> 178
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 attgccttct tcaaacacagg gtgtcattct gatatttatg aggactgttg 200
 ttctcactat gaaggcatct gttattgaaa tgttccttgt tttgctggtg 250
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 gttcactgtg cctcagatca actgcgatgt caaagccgga aagatcatcg 350
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<210> 179

<211> 678
 <212> PRT
 <213> Homo sapiens

<400> 179

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				20					25				30	
Ala	Lys	Lys	Ile	Lys	Arg	Pro	Lys	Phe	Thr	Val	Pro	Gln	Ile	Asn
				35					40				45	
Cys	Asp	Val	Lys	Ala	Gly	Lys	Ile	Ile	Asp	Pro	Glu	Phe	Ile	Val
				50					55				60	
Lys	Cys	Pro	Ala	Gly	Cys	Gln	Asp	Pro	Lys	Tyr	His	Val	Tyr	Gly
				65					70				75	
Thr	Asp	Val	Tyr	Ala	Ser	Tyr	Ser	Ser	Val	Cys	Gly	Ala	Ala	Val
				80					85				90	
His	Ser	Gly	Val	Leu	Asp	Asn	Ser	Gly	Gly	Lys	Ile	Leu	Val	Arg
				95					100				105	
Lys	Val	Ala	Gly	Gln	Ser	Gly	Tyr	Lys	Gly	Ser	Tyr	Ser	Asn	Gly
				110					115				120	
Val	Gln	Ser	Leu	Ser	Leu	Pro	Arg	Trp	Arg	Glu	Ser	Phe	Ile	Val
				125					130				135	
Leu	Glu	Ser	Lys	Pro	Lys	Lys	Gly	Val	Thr	Tyr	Pro	Ser	Ala	Leu
				140					145				150	
Thr	Tyr	Ser	Ser	Ser	Lys	Ser	Pro	Ala	Ala	Gln	Ala	Gly	Glu	Thr
				155					160				165	
Thr	Lys	Ala	Tyr	Gln	Arg	Pro	Pro	Ile	Pro	Gly	Thr	Thr	Ala	Gln
				170					175				180	
Pro	Val	Thr	Leu	Met	Gln	Leu	Leu	Ala	Val	Thr	Val	Ala	Val	Ala
				185					190				195	
Thr	Pro	Thr	Thr	Leu	Pro	Arg	Pro	Ser	Pro	Ser	Ala	Ala	Ser	Thr
				200					205				210	
Thr	Ser	Ile	Pro	Arg	Pro	Gln	Ser	Val	Gly	His	Arg	Ser	Gln	Glu
				215					220				225	
Met	Asp	Leu	Trp	Ser	Thr	Ala	Thr	Tyr	Thr	Ser	Ser	Gln	Asn	Arg
				230					235				240	
Pro	Arg	Ala	Asp	Pro	Gly	Ile	Gln	Arg	Gln	Asp	Pro	Ser	Gly	Ala
				245					250				255	
Ala	Phe	Gln	Lys	Pro	Val	Gly	Ala	Asp	Val	Ser	Leu	Gly	Leu	Val
				260					265				270	
Pro	Lys	Glu	Glu	Leu	Ser	Thr	Gln	Ser	Leu	Glu	Pro	Val	Ser	Leu
				275					280				285	
Gly	Asp	Pro	Asn	Cys	Lys	Ile	Asp	Leu	Ser	Phe	Leu	Ile	Asp	Gly

	290		295		300
Ser Thr Ser Ile	Gly Lys Arg Arg Phe Arg	Ile Gln Lys Gln Leu			
	305	310			315
Leu Ala Asp Val	Ala Gln Ala Leu Asp	Ile Gly Pro Ala Gly Pro			
	320	325			330
Leu Met Gly Val	Val Gln Tyr Gly Asp	Asn Pro Ala Thr His Phe			
	335	340			345
Asn Leu Lys Thr	His Thr Asn Ser Arg Asp	Leu Lys Thr Ala Ile			
	350	355			360
Glu Lys Ile Thr	Gln Arg Gly Gly Leu Ser	Asn Val Gly Arg Ala			
	365	370			375
Ile Ser Phe Val	Thr Lys Asn Phe Phe Ser	Lys Ala Asn Gly Asn			
	380	385			390
Arg Ser Gly Ala	Pro Asn Val Val Val Val	Met Val Asp Gly Trp			
	395	400			405
Pro Thr Asp Lys	Val Glu Glu Ala Ser Arg	Leu Ala Arg Glu Ser			
	410	415			420
Gly Ile Asn Ile	Phe Phe Ile Thr Ile Glu	Gly Ala Ala Glu Asn			
	425	430			435
Glu Lys Gln Tyr	Val Val Glu Pro Asn Phe	Ala Asn Lys Ala Val			
	440	445			450
Cys Arg Thr Asn	Gly Phe Tyr Ser Leu His	Val Gln Ser Trp Phe			
	455	460			465
Gly Leu His Lys	Thr Leu Gln Pro Leu Val	Lys Arg Val Cys Asp			
	470	475			480
Thr Asp Arg Leu	Ala Cys Ser Lys Thr Cys	Leu Asn Ser Ala Asp			
	485	490			495
Ile Gly Phe Val	Ile Asp Gly Ser Ser Ser	Val Gly Thr Gly Asn			
	500	505			510
Phe Arg Thr Val	Leu Gln Phe Val Thr Asn	Leu Thr Lys Glu Phe			
	515	520			525
Glu Ile Ser Asp	Thr Asp Thr Arg Ile Gly	Ala Val Gln Tyr Thr			
	530	535			540
Tyr Glu Gln Arg	Leu Glu Phe Gly Phe Asp	Lys Tyr Ser Ser Lys			
	545	550			555
Pro Asp Ile Leu	Asn Ala Ile Lys Arg Val	Gly Tyr Trp Ser Gly			
	560	565			570
Gly Thr Ser Thr	Gly Ala Ala Ile Asn Phe	Ala Leu Glu Gln Leu			
	575	580			585
Phe Lys Lys Ser	Lys Pro Asn Lys Arg Lys	Leu Met Ile Leu Ile			
	590	595			600
Thr Asp Gly Arg	Ser Tyr Asp Asp Val Arg	Ile Pro Ala Met Ala			

605	610	615
Ala His Leu Lys Gly Val Ile Thr Tyr	Ala Ile Gly Val Ala Trp	
620	625	630
Ala Ala Gln Glu Glu Leu Glu Val Ile	Ala Thr His Pro Ala Arg	
635	640	645
Asp His Ser Phe Phe Val Asp Glu Phe	Asp Asn Leu His Gln Tyr	
650	655	660
Val Pro Arg Ile Ile Gln Asn Ile Cys	Thr Glu Phe Asn Ser Gln	
665	670	675

Pro Arg Asn

<210> 180
 <211> 1759
 <212> DNA
 <213> Homo sapiens

<400> 180
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 agatcccgcc cactacagtt tttctctgac tetaattgat gcaactggaca 200
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 aacaaacatt cgagtggtag gaggactcct gtctgctcat ctgctctcca 350
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 ctgagaatgg ctgaggagcg gcccgaata ctctcccag cctttcagac 450
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 agccatcctg ctccaggata agaagctcat ggccatgttc ctagagtata 800
 acaaagccat ccggaactac acccgcttcg atgactggta cctgtgggtt 850
 cagatgtaca aggggactgt gtccatgcca gtcttcactg ccttgagggc 900
 ctactggcct ggtcttcaga ggcctattgg agacattgac aatgccatga 950
 ggaccttctt caactactac actgtatgga agcagtttgg ggggctcccg 1000

gaattctaca acattcctca gggatacaca gtggagaagc gagagggcta 1050
cccacttcgg ccagaactta ttgaaagcgc aatgtacctc taccgtgcc 1100
cgggggatcc caccctccta gaactcggaa gagatgctgt ggaatccatt 1150
gaaaaaatca gcaaggtgga gtgcgggattt gcaacaatca aagatctgcg 1200
agaccacaag ctggacaacc gcatggagtc gttcttcctg gccgagactg 1250
tgaatatcct ctacctcctg tttagaccac ccaacttcat ccacaacaat 1300
gggtccacct tcgacgcggt gatcaccccc tatggggagt gcactcctggg 1350
ggctgggggg tacatcttca acacagaagc tcaccccatc gacottgccg 1400
ccctgcactg ctgccagagg ctgaaggaag agcagtgagg ggtggaggac 1450
ttgatgaggg aattctactc tctcaaacgg agcaggtcga aatttcagaa 1500
aaacactggt agttcggggc catgggaacc tcagcaagg ccaggaaacac 1550
tcttctcacc agaaaaccat gaccaggcaa gggagaggaa gcctgccaaa 1600
cagaaggtcc cacttctcag ctgccccagt cagcccttca cctccaagtt 1650
ggcattactg ggacaggttt tcctagactc ctcataacca ctggataatt 1700
tttttatttt tatttttttg aggcataaact ataataaatt gcttttggct 1750
atcataaaa 1759

<210> 181
<211> 541
<212> PRT
<213> Homo sapiens

<400> 181
Met Pro Phe Arg Leu Leu Ile Pro Leu Gly Leu Leu Cys Ala Leu
1 5 10 15
Leu Pro Gln His His Gly Ala Pro Gly Pro Asp Gly Ser Ala Pro
20 25 30
Asp Pro Ala His Tyr Ser Phe Ser Leu Thr Leu Ile Asp Ala Leu
35 40 45
Asp Thr Leu Leu Ile Leu Gly Asn Val Ser Glu Phe Gln Arg Val
50 55 60
Val Glu Val Leu Gln Asp Ser Val Asp Phe Asp Ile Asp Val Asn
65 70 75
Ala Ser Val Phe Glu Thr Asn Ile Arg Val Val Gly Gly Leu Leu
80 85 90
Ser Ala His Leu Leu Ser Lys Lys Ala Gly Val Glu Val Glu Ala
95 100 105
Gly Trp Pro Cys Ser Gly Pro Leu Leu Arg Met Ala Glu Glu Ala
110 115 120
Ala Arg Lys Leu Leu Pro Ala Phe Gln Thr Pro Thr Gly Met Pro

	125		130		135
Tyr Gly Thr Val	Asn Leu Leu His Gly	Val Asn Pro Gly Glu Thr			
	140	145		150	
Pro Val Thr Cys	Thr Ala Gly Ile Gly	Thr Phe Ile Val Glu Phe			
	155	160		165	
Ala Thr Leu Ser	Ser Leu Thr Gly Asp	Pro Val Phe Glu Asp Val			
	170	175		180	
Ala Arg Val Ala	Leu Met Arg Leu Trp	Glu Ser Arg Ser Asp Ile			
	185	190		195	
Gly Leu Val Gly	Asn His Ile Asp Val	Leu Thr Gly Lys Trp Val			
	200	205		210	
Ala Gln Asp Ala	Gly Ile Gly Ala Gly	Val Asp Ser Tyr Phe Glu			
	215	220		225	
Tyr Leu Val Lys	Gly Ala Ile Leu Leu	Gln Asp Lys Lys Leu Met			
	230	235		240	
Ala Met Phe Leu	Glu Tyr Asn Lys Ala	Ile Arg Asn Tyr Thr Arg			
	245	250		255	
Phe Asp Asp Trp	Tyr Leu Trp Val Gln	Met Tyr Lys Gly Thr Val			
	260	265		270	
Ser Met Pro Val	Phe Gln Ser Leu Glu	Ala Tyr Trp Pro Gly Leu			
	275	280		285	
Gln Ser Leu Ile	Gly Asp Ile Asp Asn	Ala Met Arg Thr Phe Leu			
	290	295		300	
Asn Tyr Tyr Thr	Val Trp Lys Gln Phe	Gly Gly Leu Pro Glu Phe			
	305	310		315	
Tyr Asn Ile Pro	Gln Gly Tyr Thr Val	Glu Lys Arg Glu Gly Tyr			
	320	325		330	
Pro Leu Arg Pro	Glu Leu Ile Glu Ser	Ala Met Tyr Leu Tyr Arg			
	335	340		345	
Ala Thr Gly Asp	Pro Thr Leu Leu Glu	Leu Gly Arg Asp Ala Val			
	350	355		360	
Glu Ser Ile Glu	Lys Ile Ser Lys Val	Glu Cys Gly Phe Ala Thr			
	365	370		375	
Ile Lys Asp Leu	Arg Asp His Lys Leu	Asp Asn Arg Met Glu Ser			
	380	385		390	
Phe Phe Leu Ala	Glu Thr Val Lys Tyr	Leu Tyr Leu Leu Phe Asp			
	395	400		405	
Pro Thr Asn Phe	Ile His Asn Asn Gly	Ser Thr Phe Asp Ala Val			
	410	415		420	
Ile Thr Pro Tyr	Gly Glu Cys Ile Leu	Gly Ala Gly Gly Tyr Ile			
	425	430		435	
Phe Asn Thr Glu	Ala His Pro Ile Asp	Leu Ala Ala Leu His Cys			

	440		445		450
Cys Gln Arg Leu	Lys Glu Glu Gln Trp	Glu Val Glu Asp Leu Met			
	455	460			465
Arg Glu Phe Tyr	Ser Leu Lys Arg Ser	Arg Ser Lys Phe Gln Lys			
	470	475			480
Asn Thr Val Ser	Ser Gly Pro Trp Glu	Pro Pro Ala Arg Pro Gly			
	485	490			495
Thr Leu Phe Ser	Pro Glu Asn His Asp	Gln Ala Arg Glu Arg Lys			
	500	505			510
Pro Ala Lys Gln	Lys Val Pro Leu Leu Ser	Cys Pro Ser Gln Pro			
	515	520			525
Phe Thr Ser Lys	Leu Ala Leu Leu Gly	Gln Val Phe Leu Asp Ser			
	530	535			540

Ser

<210> 182
 <211> 2056
 <212> DNA
 <213> Homo sapiens

<400> 182
 aaagttacat tttctctgga actctcctag gccactccct gctgatgcaa 50
 catctggggtt tgggcagaaa ggagggtgct tcggagcccg cctttctctga 100
 gttctctggg ccggctctag aacaattcag gcttcgtctgc gactcagacc 150
 tcagctccaa catatgcatt ctgaagaaag atggctgaga tggacagaat 200
 gctttattttt ggaaagaaac aatgttctag gtcaactga gtctaccaa 250
 tgcagacttt cacaatggtt ctagaagaaa tctggacaag tcttttcattg 300
 tgggtttttct acgcattgat tccatgtttg ctacacagatg aagtggccatc 350
 totgctgtcc cctcagaacc tctctgtact ctcaaccaac atgaagcatc 400
 tcttgatgtg gagcccagtg atcgccctg gagaacagtg gtactattct 450
 gtcgaatacc agggggagta cgagagcctg tacacgagcc acatctggat 500
 cccagcagc tgggtgtcac tcaactgaag tctgtagtgt gatgtcactg 550
 atgacatcac ggccactgtg ccatacaacc ttctgttcag ggccacattg 600
 ggctcacaga cctcagcctg gagcatcctg aagcatccct ttaatagaaa 650
 ctcaaccatc cttaccogac ctgggatgga gatcaccaaa gatggttcc 700
 acctggttat tgagctggag gacctggggc ccagttttga gttccttgtg 750
 gcctactgga ggaggagacc tgggtccgag gaacatgtca aaatggtgag 800
 gagtgggggt attccagtgc acctagaaac catggagcca ggggctgcat 850

actgtgtgaa ggcccagaca ttctgaagg ccattgggag gtacagcgcc 900
 ttcagccaga cagaatgtgt ggaggtgcaa ggagaggcca tccccctggt 950
 actggccctg tttgcctttg ttggcttcat gctgatcctt gtggtcgtgc 1000
 cactgttcgt ctggaaaatg ggccggctgc tccagtactc ctgttgcccc 1050
 gtggtggtcc tcccagacac cttgaaaata accaattcac cccagaagtt 1100
 aatcagctgc agaaggaggg aggtggatgc ctgtgccacg gctgtgatgt 1150
 ctctgagga actcctcagg gcctggatct cataggtttg cggaagggcc 1200
 cagggtgaag cgagaacctg gtctgcatga catggaaacc atgaggggac 1250
 aagttgtgtt tctgttttcc gccacggaca agggatgaga gaagtaggaa 1300
 gagcctgttg tctacaagtc tagaagcaac catcagaggc aggggtggtt 1350
 gtctaacaga acaactgactg aggccttaggg gatgtgacct ctagactggg 1400
 gggtgccact tgctggctga gcaaccctgg gaaaagtgc ttcacctt 1450
 cggctctaag ttttctcatc tgtaattggg gaattaccta cacacctgct 1500
 aaacacacac acacagagtc tctctctata tatacacacg tacacataaa 1550
 tacacccagc acttgcaagg ctagagggaa actggtgaca ctctacagtc 1600
 tgactgattc agtgtttctg gagagcagga cataaatgta tgatgagaat 1650
 gatcaaggac tctacacact ggggtggctg gagagcccac tttccagaa 1700
 taatccttga gagaaaagga atcatgggag caatgggtgt gagttcactt 1750
 caagcccaat gccggtgcag aggggaatgg cttagcgagc totacagtag 1800
 gtgacctgga ggaaggtcac agccacactg aaaatgggat gtgcatgaac 1850
 acggaggatc catgaactac tgtaaagtgt tgacagtgtg tgcacactgc 1900
 agacagcagg tgaatgtat gtgtgcaatg cgacgagaat gcagaagtca 1950
 gtaacatgtg catgtttgtt gtgctccttt tttctgttg taaagtacag 2000
 aattcagcaa ataaaaaggg ccaccctggc caaaagcggg aaaaaaaaaa 2050
 aaaaaa 2056

<210> 183
 <211> 311
 <212> PRT
 <213> Homo sapiens

 <220>
 <221> Signal peptide
 <222> 1-29
 <223> Signal peptide

 <220>
 <221> N-glycosylation sites
 <222> 40-43, 134-137

<223> N-glycosylation sites.

<220>

<221> Tissue factor proteins homology

<222> 92-119

<223> Tissue factor proteins homology

<220>

<221> Transmembrane domain

<222> 230-255

<223> Transmembrane domain

<220>

<221> Integrins alpha chain protein homology

<222> 232-262

<223> Integrins alpha chain protein homology

<400> 183

Met	Gln	Thr	Phe	Thr	Met	Val	Leu	Glu	Glu	Ile	Trp	Thr	Ser	Leu
1				5					10					15
Phe	Met	Trp	Phe	Phe	Tyr	Ala	Leu	Ile	Pro	Cys	Leu	Leu	Thr	Asp
				20					25					30
Glu	Val	Ala	Ile	Leu	Pro	Ala	Pro	Gln	Asn	Leu	Ser	Val	Leu	Ser
				35					40					45
Thr	Asn	Met	Lys	Ser	His	Leu	Leu	Met	Trp	Ser	Pro	Val	Ile	Ala
				50						55				60
Gly	Glu	Thr	Val	Tyr	Tyr	Ser	Val	Glu	Tyr	Gln	Gly	Glu	Tyr	Glu
				65					70					75
Ser	Leu	Tyr	Thr	Ser	His	Ile	Trp	Ile	Pro	Ser	Ser	Trp	Cys	Ser
				80					85					90
Leu	Thr	Glu	Gly	Pro	Glu	Cys	Asp	Val	Thr	Asp	Asp	Ile	Thr	Ala
				95					100					105
Thr	Val	Pro	Tyr	Asn	Leu	Arg	Val	Arg	Ala	Thr	Leu	Gly	Ser	Gln
				110					115					120
Thr	Ser	Ala	Trp	Ser	Ile	Leu	Lys	His	Pro	Phe	Asn	Arg	Asn	Ser
				125					130					135
Thr	Ile	Leu	Thr	Arg	Pro	Gly	Met	Glu	Ile	Thr	Lys	Asp	Gly	Phe
				140					145					150
His	Leu	Val	Ile	Glu	Leu	Glu	Asp	Leu	Gly	Pro	Gln	Phe	Glu	Phe
				155					160					165
Leu	Val	Ala	Tyr	Trp	Arg	Arg	Glu	Pro	Gly	Ala	Glu	Glu	His	Val
				170					175					180
Lys	Met	Val	Arg	Ser	Gly	Gly	Ile	Pro	Val	His	Leu	Glu	Thr	Met
				185					190					195
Glu	Pro	Gly	Ala	Ala	Tyr	Cys	Val	Lys	Ala	Gln	Thr	Phe	Val	Lys
				200					205					210
Ala	Ile	Gly	Arg	Tyr	Ser	Ala	Phe	Ser	Gln	Thr	Glu	Cys	Val	Glu
				215					220					225

Val Gln Gly Glu Ala Ile Pro Leu Val Leu Ala Leu Phe Ala Phe
230 235 240

Val Gly Phe Met Leu Ile Leu Val Val Val Pro Leu Phe Val Trp
245 250 255

Lys Met Gly Arg Leu Leu Gln Tyr Ser Cys Cys Pro Val Val Val
260 265 270

Leu Pro Asp Thr Leu Lys Ile Thr Asn Ser Pro Gln Lys Leu Ile
275 280 285

Ser Cys Arg Arg Glu Glu Val Asp Ala Cys Ala Thr Ala Val Met
290 295 300

Ser Pro Glu Glu Leu Leu Arg Ala Trp Ile Ser
305 310

<210> 184
<211> 808
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 654, 711, 748
<223> unknown base

<400> 184
tcctgctgat gcacatctgg gtttggcaaa aggaggttgc ttcgagccgc 50
cctttctagc ttcttggcgc gctctagaac aattcaggct tcgctgcgac 100
tagacctcag ctccaacata tgcattctga agaaagatgg ctgagatgac 150
agaatgcttt attttggaaa gaaacaatgt tctaggtcaa actgagtcta 200
ccaaatgcag actttcacaa tggttctaga agaaatctgg acaagtcttt 250
tcatgtggtt tttctacgca ttgattccat gtttgctcac agatgaagtg 300
gccattctgc ctgcccctca gaacctctct gtactctcaa ccaacatgaa 350
gcactctctt atgtggagcc cagtgatgc gcctggagaa acagtgtact 400
attctgtcga ataccagggg gagtacgaga gcctgtacac gagccacatc 450
tggatcccca gcagctgggtg ctcaactcaact gaaggtcctg agtgtgatgt 500
cactgatgac atcacggcca ctgtgccata caacctttgt gtcagggccca 550
cattgggctc acagacctca gcctggagca toctgaagca tccctttaat 600
agaaactcaa ccatccttac ccgacctggg atggagatca ccaagatgg 650
cttnacctg gttattgagc tggaggacct ggggccccag tttgagtccc 700
ttgtggccta ntggaggagg ggccaacccc ttgcggcgca aggggttngc 750
gaaccocctg cggcgcgtgg ggtatctctc gagaaaagag agggccaata 800
tgacccac 808

<210> 185
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 185
aggcttcgct gcgactagac ctc 23

<210> 186
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 186
ccaggtcggg taaggatggt tgag 24

<210> 187
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 187
ttttacgca ttgattccat gtttgctcac agatgaagt gccattctgc 50

<210> 188
<211> 1227
<212> DNA
<213> Homo sapiens

<400> 188
cggacgcgtg ggccgccacc tcggaacaa gccatgggtg cggcgacggt 50
ggcagcggcg tggtctctcc tgtgggctgc gccctgcgcg cagcaggagc 100
aggacttcta cgacttcaag gcggtcaaca tccggggcaa actggtgtcg 150
ctggagaagt accgoggatc ggtgtccctg gtggtgaatg tggccagcga 200
gtgcggtctc acagaccagc actaccgagc cctgcagcag ctgcagcgag 250
acctggggcc ccaccacttt aacgtgctcg ccttcccctg caaccagttt 300
ggccaacagg agcctgacag caacaaggag attgagagct ttgcccgccg 350
cacctacagt gtctcattcc ccattgttag caagattgca gtcaccggta 400
ctggtgccca tctgccttc aagtacctgg ccagacttc tgggaaggag 450
cccacctgga acttctggaa gtacctagta gcccagatg gaaaggtggt 500
aggggcttgg gaccctaactg tgtcagtgga ggaggtcaga cccagatca 550
cagcgctcgt gaggaagctc atctactga agcgagaaga cttataacca 600

ccgcgtctcc tctccacca cctcatcccg cccacctgtg tggggctgac 650
 caatgcaaac tcaaatggtg cttcaaaggg agagacccac tgaactctcct 700
 tcctttactc ttatgccatt ggtcccatca ttcttgtggg ggaataatc 750
 tagtattttg attatttgaa tcttacagca acaaatagga actcctggcc 800
 aatgagagct cttgaccagt gaatcaccag ccgatacgaa cgtcttgcca 850
 acaaaaatgt gtggcaataa gaagtatatc aagcaataat ctccacacca 900
 aggcttctgt aaactgggac caatgattac ctcatagggc tgttgtgagg 950
 attagatga aatacctgtg aaagtgccta ggcagtgcc a gcaaatagg 1000
 aggcattcaa tgaacatttt ttgcatataa accaaaaaat aacttgttat 1050
 caataaaaac ttgcatcaa catgaatttc cagccagta taatccaggc 1100
 caaaggttta gttgttgta ttctctctgt attattttct tcattacaaa 1150
 agaaatgcaa gttcattgta acaatccaaa caatacctca cgatataaaa 1200
 taaaaatgaa agtatcctcc tcaaaaa 1227

<210> 189
 <211> 187
 <212> PRT
 <213> Homo sapiens

<400> 189
 Met Val Ala Ala Thr Val Ala Ala Ala Trp Leu Leu Leu Trp Ala 15
 1 5 10
 Ala Ala Cys Ala Gln Gln Glu Gln Asp Phe Tyr Asp Phe Lys Ala 30
 20 25
 Val Asn Ile Arg Gly Lys Leu Val Ser Leu Glu Lys Tyr Arg Gly 45
 35 40 45
 Ser Val Ser Leu Val Val Asn Val Ala Ser Glu Cys Gly Phe Thr 60
 50 55
 Asp Gln His Tyr Arg Ala Leu Gln Gln Leu Gln Arg Asp Leu Gly 75
 65 70 75
 Pro His His Phe Asn Val Leu Ala Phe Pro Cys Asn Gln Phe Gly 90
 80 85
 Gln Gln Glu Pro Asp Ser Asn Lys Glu Ile Glu Ser Phe Ala Arg 105
 95 100
 Arg Thr Tyr Ser Val Ser Phe Pro Met Phe Ser Lys Ile Ala Val 120
 110 115
 Thr Gly Thr Gly Ala His Pro Ala Phe Lys Tyr Leu Ala Gln Thr 135
 125 130
 Ser Gly Lys Glu Pro Thr Trp Asn Phe Trp Lys Tyr Leu Val Ala 150
 140 145
 Pro Asp Gly Lys Val Val Gly Ala Trp Asp Pro Thr Val Ser Val

155 160 165
 Glu Glu Val Arg Pro Gln Ile Thr Ala Leu Val Arg Lys Leu Ile
 170 175 180
 Leu Leu Lys Arg Glu Asp Leu
 185

<210> 190
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 190
 gcaggacttc tacgacttca aggc 24

<210> 191
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 191
 agtctggggcc aggtacttga aggc 24

<210> 192
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 192
 caacatccgg ggcaaaactgg tgtcgctgga gaagtaccgc ggatcggtgt 50

<210> 193
 <211> 2187
 <212> DNA
 <213> Homo sapiens

<400> 193
 cggacgcgtg ggcgggcccgg gacgcagggc aaagcgagcc atggctgtct 50
 acgtcgggat gctgcgcctg gggaggctgt gcgccgggag ctccgggggtg 100
 ctggggggccc gggccgccct ctctcgaggt tggcaggaag ccagggttgca 150
 ggggtgtccgc ttcctcagtt ccagagaggt ggatcgcatg gtctccacgc 200
 ccatcgaggag cctcagctac gttcagggggt gcaccaaaaa gcctcttaac 250
 agcaagactg tgggccagtg cctggagacc acagcacaga ggggtcccaga 300
 acgagaggcc ttggctcgtc tccatgaaga cgtcagggtg acctttgccc 350
 aactcaagga ggaggtggac aaagctgctt ctggcctcct gagcattggc 400

ctctgcaaag gtgacgggct gggcatgtgg ggacctaact cctatgcatg 450
 ggtgctcatg cagttggcca ccgcccaggc gggcatcatt ctggtgtctg 500
 tgaacccagc ctaccaggct atggaactgg agtatgtcct caagaagggtg 550
 ggctgcaagg cccttgtgtt cccaagcaa ttcaagaccc agcaatacta 600
 caacgtcctg aagcagatct gtccagaagt ggaagaatgcc cagccagggg 650
 ccttgaagag tcagaggctc ccagatctga ccacagtcat ctcggtggat 700
 gcccttttgc cggggaccct gctcctggat gaagtgttgg cggctggcag 750
 cacacggcag catctggacc agctccaata caaccagcag ttcctgtcct 800
 gccatgaccc catcaacatc cagttcacct cggggacaac aggcagcccc 850
 aagggggcca ccctctccca ctacaacatt gtcaacaact ccaacatttt 900
 aggagagcgc ctgaaactgc atgagaagac accagagcag ttgcggatga 950
 tcctgcccaa cccctgtac cattgcctgg gttccgtggc aggacaaatg 1000
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 tggcaagaag gcactggagg ccacacagcag agagagaggc accttctctg 1100
 atggtacccc cacgatgttc gtggacattc tgaaccagcc agacttctcc 1150
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 tgggtggttc ttatggaacc acagagaaca gtcccgtgac attcgcgcac 1300
 ttccctgagg acactgtgga gcagaaggca gaaagcgtgg gcagaattat 1350
 gcctcacacg gaggcccgga tcatgaacat ggaggcaggg acgctggcaa 1400
 agctgaacac gcccggggag ctgtgcatcc gagggtagtg cgtcatgtct 1450
 ggctactggg gtgagcctca gaagacagag gaagcagtg atcaggacaa 1500
 gtggtattgg acaggagatg tcgccacaat gaatgagcag ggcttctgca 1550
 agatcgtggg ccgctctaag gatatgatca tccgggggtg tgagaacatc 1600
 taccocgacg agctcgagga cttctttcac acacacccga aggtgcagga 1650
 agtgcaggtg gtgggagtga aggacgatcg gatgggggaa gagatttgtg 1700
 cctgcattcg gctgaaggac ggggaggaga ccacggtgga ggagataaaa 1750
 gctttctgca aagggaagat ctctcacttc aagattccga agtacatcgt 1800
 gtttgtcaca aactaccccc tcaccatttc aggaaagatc cagaaaattca 1850
 aacttcgaga gcagatggaa cgacatctaa atctgtgaat aaagcagcag 1900
 gcctgtcctg gccggttgcc ttgactctct cctgtcagaa tgcaacctgg 1950
 ctttatgcac ctgatgtcc ccagcaccca gttctgagcc aggcacatca 2000

aatgtcaagg aattgactga acgaactaag agctcctgga tgggtccggg 2050
 aactgcgctg ggcacaaggt gccaaaaggc aggcagcctg cccaggccct 2100
 cctcctgtgc catccccac attcccctgt ctgtccttgt gatttggcat 2150
 aaagagcttc tgttttcttt gaaaaaaaa aaaaaa 2187

<210> 194
 <211> 615
 <212> PRT
 <213> Homo sapiens

<400> 194
 Met Ala Val Tyr Val Gly Met Leu Arg Leu Gly Arg Leu Cys Ala
 1 5 10 15
 Gly Ser Ser Gly Val Leu Gly Ala Arg Ala Ala Leu Ser Arg Ser
 20 25 30
 Trp Gln Glu Ala Arg Leu Gln Gly Val Arg Phe Leu Ser Ser Arg
 35 40 45
 Glu Val Asp Arg Met Val Ser Thr Pro Ile Gly Gly Leu Ser Tyr
 50 55 60
 Val Gln Gly Cys Thr Lys Lys His Leu Asn Ser Lys Thr Val Gly
 65 70 75
 Gln Cys Leu Glu Thr Thr Ala Gln Arg Val Pro Glu Arg Glu Ala
 80 85 90
 Leu Val Val Leu His Glu Asp Val Arg Leu Thr Phe Ala Gln Leu
 95 100 105
 Lys Glu Glu Val Asp Lys Ala Ala Ser Gly Leu Leu Ser Ile Gly
 110 115 120
 Leu Cys Lys Gly Asp Arg Leu Gly Met Trp Gly Pro Asn Ser Tyr
 125 130 135
 Ala Trp Val Leu Met Gln Leu Ala Thr Ala Gln Ala Gly Ile Ile
 140 145 150
 Leu Val Ser Val Asn Pro Ala Tyr Gln Ala Met Glu Leu Glu Tyr
 155 160 165
 Val Leu Lys Lys Val Gly Cys Lys Ala Leu Val Phe Pro Lys Gln
 170 175 180
 Phe Lys Thr Gln Gln Tyr Tyr Asn Val Leu Lys Gln Ile Cys Pro
 185 190 195
 Glu Val Glu Asn Ala Gln Pro Gly Ala Leu Lys Ser Gln Arg Leu
 200 205 210
 Pro Asp Leu Thr Thr Val Ile Ser Val Asp Ala Pro Leu Pro Gly
 215 220 225
 Thr Leu Leu Leu Asp Glu Val Val Ala Ala Gly Ser Thr Arg Gln
 230 235 240
 His Leu Asp Gln Leu Gln Tyr Asn Gln Gln Phe Leu Ser Cys His

Asp Pro Ile Asn	245	Ile Gln Phe Thr Ser	250	Gly Thr Thr Gly Ser Pro	255
	260		265		270
Lys Gly Ala Thr	275	Leu Ser His Tyr Asn	280	Ile Val Asn Asn Ser Asn	285
Ile Leu Gly Glu	290	Arg Leu Lys Leu His	295	Glu Lys Thr Pro Glu Gln	300
Leu Arg Met Ile	305	Leu Pro Asn Pro Leu	310	Tyr His Cys Leu Gly Ser	315
Val Ala Gly Thr	320	Met Met Cys Leu Met	325	Tyr Gly Ala Thr Leu Ile	330
Leu Ala Ser Pro	335	Ile Phe Asn Gly Lys	340	Lys Ala Leu Glu Ala Ile	345
Ser Arg Glu Arg	350	Gly Thr Phe Leu Tyr	355	Gly Thr Pro Thr Met Phe	360
Val Asp Ile Leu	365	Asn Gln Pro Asp Phe	370	Ser Ser Tyr Asp Ile Ser	375
Thr Met Cys Gly	380	Gly Val Ile Ala Gly	385	Ser Pro Ala Pro Pro Glu	390
Leu Ile Arg Ala	395	Ile Ile Asn Lys Ile	400	Asn Met Lys Asp Leu Val	405
Val Ala Tyr Gly	410	Thr Thr Glu Asn Ser	415	Pro Val Thr Phe Ala His	420
Phe Pro Glu Asp	425	Thr Val Glu Gln Lys	430	Ala Glu Ser Val Gly Arg	435
Ile Met Pro His	440	Thr Glu Ala Arg Ile	445	Met Asn Met Glu Ala Gly	450
Thr Leu Ala Lys	455	Leu Asn Thr Pro Gly	460	Glu Leu Cys Ile Arg Gly	465
Tyr Cys Val Met	470	Leu Gly Tyr Trp Gly	475	Glu Pro Gln Lys Thr Glu	480
Glu Ala Val Asp	485	Gln Asp Lys Trp Tyr	490	Trp Thr Gly Asp Val Ala	495
Thr Met Asn Glu	500	Gln Gly Phe Cys Lys	505	Ile Val Gly Arg Ser Lys	510
Asp Met Ile Ile	515	Arg Gly Gly Glu Asn	520	Ile Tyr Pro Ala Glu Leu	525
Glu Asp Phe Phe	530	His Thr His Pro Lys	535	Val Gln Glu Val Gln Val	540
Val Gly Val Lys	545	Asp Asp Arg Met Gly	550	Glu Glu Ile Cys Ala Cys	555
Ile Arg Leu Lys		Asp Gly Glu Glu Thr		Val Val Glu Glu Ile Lys	

	560		565		570
Ala Phe Cys Lys	Gly Lys Ile Ser His	Phe Lys Ile Pro Lys Tyr			
	575	580		585	
Ile Val Phe Val	Thr Asn Tyr Pro Leu Thr Ile Ser Gly Lys Ile				
	590	595		600	
Gln Lys Phe Lys	Leu Arg Glu Gln Met	Gly Arg His Leu Asn Leu			
	605	610		615	

<210> 195
 <211> 642
 <212> DNA
 <213> Homo sapiens

<400> 195
 caactccaac attttaggag agcgccctgaa actgcatgag aagacaccag 50
 agcagttgctg gatgatcctg cccaaccccc tgtaccattg cctgggttcc 100
 gtggcaggca caatgatgtg tctgatgtac ggtgccacc tcactctggc 150
 ctctcccatc ttcaatggca agaaggcact ggaggccatc agcagagaga 200
 gaggcacctt cctgtatggt acccccacga tgttcgtgga cattctgaac 250
 cagccagact tctccagtta tgacatctcg accatgtgtg gaggtgtcat 300
 tgctgggtcc cctgcacctc cagagttgat cggagccatc atcaacaaga 350
 taaatatgaa ggacctgggt gttgcttatg gaaccacaga gaacagtccc 400
 gtgacattcg cgcaacttcc tgaggacact gtggagcaga aggagaaaag 450
 cgtgggcaga attatgcctc acacggaggc gcggatcatg aacatggagg 500
 cagggcgctt ggcaaagctg aacacgcccg gggagctgtg catcagaggg 550
 tactgcgtca tgctgggcta ctgggggtgag cctcagaaga cagaggaagc 600
 agtggatcag gacaagtggg attggacagg agatgtcgcc ac 642

<210> 196
 <211> 1575
 <212> DNA
 <213> Homo sapiens

<400> 196
 gagcaggacg gagccatgga ccccgccagg aaagcaggtg ccaggccat 50
 gatctggact gcaggctggc tgctgctgct gctgcttcgc ggaggagcgc 100
 aggccctgga gtgctacagc tgcgtgcaga aagcagatga cggatgtccc 150
 ccgaacaaga tgaagacagt gaagtgcgcg ccggcgctgg acgtctgcac 200
 cgaggccgtg ggggcggttg agaccatcca cggacaattc tcgctggcag 250
 tgcggggttg cggttcggga ctccccggca agaataccgc cggcctggat 300
 cttcacgggc ttctggcggt catccagctg cagcaatgag ctcaggatcg 350

ctgcaacgcc aagctcaacc tcacctcgcg ggcgctcgac cggcaggta 400
 atgagagtgc ataccgcccc aacggcggtg agtgctacag ctgtgtgggc 450
 ctgagccggg aggcgtgccca gggatcatcg ccgccggtcg tgagctgcta 500
 caacgccagc gatcatgtct acaagggtcg ctctgacggc aacgtcacct 550
 tgacggcagc taatgtgact gtgtccttgc ctgtccgggg ctgtgtccag 600
 gatgaattct gcactcggga tggagtaaca gggccagggt tcacgtcag 650
 tggctcctgt tggcaggggt ccgctgtaa ctctgacctc cgacaaca 700
 cctacttctc cctcgaatc ccacccttg tcggctgccc cctccagag 750
 cccacgactg tggcctcaac cacatctgtc accacttcta cctcgcccc 800
 agtgagacc acatccacca ccaaacccat gccagcgcca accagtaca 850
 ctccgagaca gggagtagaa cacgaggcct ccgggatga ggagcccagg 900
 ttgactggag gcgccgctgg ccaccaggac cgcagcaatt cagggcagta 950
 tctgcacaaa gggggggccc agcagcccca taataaaggc tgtgtggctc 1000
 ccacagctgg attggcagcc cttctgttgg ccgtggctgc tgggtgtcta 1050
 ctgtgagctt ctccacctgg aaatttccct ctccactact tctctggccc 1100
 tgggtacccc tcttctcacc acttctgtt cccaccactg gactgggctg 1150
 gccacgcccc tgtttttcca acattcccca gtatccccag cttctgctgc 1200
 gctggtttgc ggctttggga aataaaatac cgttgtatat attctgccag 1250
 ggggtgttcta gctttttgag gacagctcct gtatccttct catcctgtc 1300
 tctccgcttg tctcttgtg atgttaggac agagttagag aagtcagctg 1350
 tcacggggaa ggtgagagag aggatgctaa gcttctact cactttctcc 1400
 tagccagcct ggactttgga gcgtggggtg ggtgggacaa tggctcccca 1450
 cttaagcac tgcctccct actccccga tctttggga atcggttccc 1500
 catatgtctt ccttactaga ctgtgagctc ctcgaggggg gggccggtac 1550
 ccaattcgcc ctatagttag tcgta 1575

<210> 197
 <211> 346
 <212> PRT
 <213> Homo sapiens

<400> 197
 Met Asp Pro Ala Arg Lys Ala Gly Ala Gln Ala Met Ile Trp Thr
 1 5 10
 Ala Gly Trp Leu Leu Leu Leu Leu Arg Gly Gly Ala Gln Ala
 20 25 30
 Leu Glu Cys Tyr Ser Cys Val Gln Lys Ala Asp Asp Gly Cys Ser

35	40	45
Pro Asn Lys Met Lys 50 Thr Val Lys Cys Ala 55	Pro Gly Val Asp Val 60	
Cys Thr Glu Ala Val 65 Gly Ala Val Glu Thr 70	Ile His Gly Gln Phe 75	
Ser Leu Ala Val Arg 80 Gly Cys Gly Ser Gly 85	Leu Pro Gly Lys Asn 90	
Asp Arg Gly Leu Asp 95 Leu His Gly Leu 100	Ala Phe Ile Gln Leu 105	
Gln Gln Cys Ala Gln 110 Asp Arg Cys Asn Ala 115	Lys Leu Asn Leu Thr 120	
Ser Arg Ala Leu Asp 125 Pro Ala Gly Asn Glu 130	Ser Ala Tyr Pro Pro 135	
Asn Gly Val Glu Cys 140 Tyr Ser Cys Val Gly 145	Leu Ser Arg Glu Ala 150	
Cys Gln Gly Thr Ser 155 Pro Pro Val Val Ser 160	Cys Tyr Asn Ala Ser 165	
Asp His Val Tyr Lys 170 Gly Cys Phe Asp Gly 175	Asn Val Thr Leu Thr 180	
Ala Ala Asn Val Thr 185 Val Ser Leu Pro Val 190	Arg Gly Cys Val Gln 195	
Asp Glu Phe Cys Thr 200 Arg Asp Gly Val Thr 205	Gly Pro Gly Phe Thr 210	
Leu Ser Gly Ser Cys 215 Cys Gln Gly Ser Arg 220	Cys Asn Ser Asp Leu 225	
Arg Asn Lys Thr Tyr 230 Phe Ser Pro Arg Ile 235	Pro Pro Leu Val Arg 240	
Leu Pro Pro Pro Glu 245 Pro Thr Thr Val Ala 250	Ser Thr Thr Ser Val 255	
Thr Thr Ser Thr Ser 260 Ala Pro Val Arg Pro 265	Thr Ser Thr Thr Lys 270	
Pro Met Pro Ala Pro 275 Thr Ser Gln Thr Pro 280	Arg Gln Gly Val Glu 285	
His Glu Ala Ser Arg 290 Asp Glu Glu Pro Arg 295	Leu Thr Gly Gly Ala 300	
Ala Gly His Gln Asp 305 Arg Ser Asn Ser Gly 310	Gln Tyr Pro Ala Lys 315	
Gly Gly Pro Gln Gln 320 Pro His Asn Lys Gly 325	Cys Val Ala Pro Thr 330	
Ala Gly Leu Ala Ala 335 Leu Leu Leu Ala Val 340	Ala Ala Gly Val Leu 345	

Leu

<210> 198
 <211> 1657
 <212> DNA
 <213> Homo sapiens

<400> 198
 cgggactcgg cgggtcctcc tgggagtctc ggaggggacc ggctgtgcag 50
 acgccatgga gttggtgctg gtcttctctc gcagcctgct ggcctccatg 100
 gtctcggcca gtgcagctga aaagagaag gaaatggacc cttttcatta 150
 tgattaccag accctgagga ttgggggact ggtgttcgct gtggtctctc 200
 tctcgttttg gatcctcctt atcctaagtc gcaggtgcaa gtgcagtttc 250
 aatcagaagc cccgggcccc aggagatgag gaagcccagg tggagaacct 300
 catcacggcc aatgcaacag agcccagaa gcagagaact gaagtgcagc 350
 catcaggtag aagcctctgg aacctgaggc ggctgctga acctttggat 400
 gcaaattgtc atgcttaaga aaaccggcca cttcagcaac agccctttcc 450
 ccaggagaag ccaagaactt gtgtgtcccc caccctatcc cctctaacaac 500
 cattctccca cctgatgatg caactaacac ttgcctcccc actgcagcct 550
 gcggtcctgc ccacctcccg tgatgtgtgt gtgtgtgtgt gtgtgtgact 600
 gtgtgtgttt gctaactgtg gtctttgtgg ctactgtttt gtggatggta 650
 ttgtgtttgt tagtgaactg tggactcgct ttcccaggca ggggctgagc 700
 cacatggcca tctgtcctcc cctgcccccg tggccctcca tcacctctcg 750
 ctctaggag gctgcttgtt gcccgagacc agccccctcc cctgatttag 800
 ggatgcgtag ggtaaagaca cgggcagtgg tcttcagtcg tcttgggacc 850
 tgggaagggt tgcagcactt tgtcatcatt ctcatggac tcttttcaact 900
 cctttaacaa aaaccttgct tccttatccc acctgatccc agtctgaag 950
 tctcttagca actggagata caaagcaagg agctggtgag ccagcgcttg 1000
 acgtcaggca ggctatgccc ttccgtggtt aatttcttcc caggggcttc 1050
 cagcaggagt ccccatctgc cccgcccctt cacagagcgc cgggggattc 1100
 caggcccagg gcttctaact tgcctctggg gaatgtgtcc cctgcatac 1150
 ttctcagcaa taactccatg ggctctggga ccctaccctc tccaaccttc 1200
 cctgcttctg agacttcaat ctacagccca gctcatccag atgcagacta 1250
 cagtcctctg aattgggtct ctggcaggca atagttgaag gactcctgtt 1300
 ccgttggggc cagcacacgg ggatggatgg agggagagca gaggcctttg 1350
 cttctctgcc tacgtccctt tagatgggca gcagaggcaa ctcccgcatc 1400

ctttgctctg cctgtcgggtg gtcagagcgg tgagcagaggt gggttgaga 1450
 ctacagcaggc tccgtgcagc ccttgggaac agtgagaggt tgaaggtcat 1500
 aacgagagtg ggaactcaac ccagatcccg cccctctctgt cctctgtgtt 1550
 cccgcggaaa ccaacaaaac cgtgcgctgt gaccattgc tgttctctgt 1600
 atcgtgatct atcctcaaca acaacagaaa aaaggaataa aatatccttt 1650
 gtttcct 1657

<210> 199
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 199
 Met Glu Leu Val Leu Val Phe Leu Cys Ser Leu Leu Ala Pro Met
 1 5 10 15
 Val Leu Ala Ser Ala Ala Glu Lys Glu Lys Glu Met Asp Pro Phe
 20 25 30
 His Tyr Asp Tyr Gln Thr Leu Arg Ile Gly Gly Leu Val Phe Ala
 35 40 45
 Val Val Leu Phe Ser Val Gly Ile Leu Leu Ile Leu Ser Arg Arg
 50 55 60
 Cys Lys Cys Ser Phe Asn Gln Lys Pro Arg Ala Pro Gly Asp Glu
 65 70 75
 Glu Ala Gln Val Glu Asn Leu Ile Thr Ala Asn Ala Thr Glu Pro
 80 85 90
 Gln Lys Gln Arg Thr Glu Val Gln Pro Ser Gly Gly Ser Leu Trp
 95 100 105
 Asn Leu Arg Arg Leu Leu Glu Pro Leu Asp Ala Asn Val Asp Ala
 110 115 120

<210> 200
 <211> 415
 <212> DNA
 <213> Homo sapiens

<400> 200
 aaacttgacg ccatagaat ccgggtcctt cctgccgtgg tgctcctctc 50
 cctcctgggtg ctccactctg ccaggggagc caccctgggt ggtcctgagg 100
 aagaaagcac cattgagaat tatgcgtcac gacccgaggc cttaaaccac 150
 ccggttctga acatcgacaa attgcgatct gcgtttaagg ctgatgagtt 200
 cctgaactgg caagccctct ttgagtctat caaaaggaaa ctctcttctc 250
 tcaactggga tgcctttcct aagctgaaag gactgaggag cgcaactcct 300
 gatgccacgt gaccatgacc tccactggaa gagggggcta gcgtgagcgc 350
 tgattotcaa cctaccataa ctctttctct cctcaggaa cccaataaaa 400

cattttccat ccaaa 415

<210> 201
<211> 99
<212> PRT
<213> Homo sapiens

<400> 201
Met Lys Ile Pro Val Leu Pro Ala Val Val Leu Leu Ser Leu Leu
1 5 10 15
Val Leu His Ser Ala Gln Gly Ala Thr Leu Gly Gly Pro Glu Glu
20 25 30
Glu Ser Thr Ile Glu Asn Tyr Ala Ser Arg Pro Glu Ala Phe Asn
35 40 45
Thr Pro Phe Leu Asn Ile Asp Lys Leu Arg Ser Ala Phe Lys Ala
50 55 60
Asp Glu Phe Leu Asn Trp His Ala Leu Phe Glu Ser Ile Lys Arg
65 70 75
Lys Leu Pro Phe Leu Asn Trp Asp Ala Phe Pro Lys Leu Lys Gly
80 85 90
Leu Arg Ser Ala Thr Pro Asp Ala Gln
95

<210> 202
<211> 678
<212> DNA
<213> Homo sapiens

<400> 202
cagtctcgaa atcaatggag ttaatttagg gaatacaaac cagccatggg 50
ggtggagatt gcctttgcct cagtattctt cactgcctc tcccttcttg 100
cagcaggagt ctcccagggt gttcttctcc agccagtcc aactcaggag 150
acaggcccca aggccatggg agatctctcc tgtggctttg ccggccactc 200
atgagagtgt ttttgtgtaa agtatttttt agaatactgt tgactttctc 250
atgatttaat aaccatcctt tgcaagttt tatgaggctt taggggaatg 300
tcaaccctca aatttttggt atactagatg gcttccattt acccaccact 350
attttaagggt ccctttattt ttaggttcaa ggttcatttg acttgagaaa 400
gtgcccttct gcagcttcat tgattttggt tatcttcaat attaatgtga 450
acgattaaaa aagaataaga gcacgcagac ctctaggaga atattttatc 500
cctgggtgcc cctgacacat ttatgtagt atccccaaaa tgtgattggt 550
aattttaaag ttattctaatt attagtacat tcagttgtga tgtaatatga 600
ataaccagaa tctatttctt aaaagtgttg agtatatttt tcaactagat 650
atttgtagat aaagactgaa tagtgatg 678

<210> 203
 <211> 52
 <212> PRT
 <213> Homo sapiens

<400> 203
 Met Gly Val Glu Ile Ala Phe Ala Ser Val Ile Leu Thr Cys Leu
 1 5 10 15
 Ser Leu Leu Ala Ala Gly Val Ser Gln Val Val Leu Leu Gln Pro
 20 25 30
 Val Pro Thr Gln Glu Thr Gly Pro Lys Ala Met Gly Asp Leu Ser
 35 40 45
 Cys Gly Phe Ala Gly His Ser
 50

<210> 204
 <211> 1917
 <212> DNA
 <213> Homo sapiens

<400> 204
 ggggaatctg cagtaggtct gccggcgatg gagtgggtggg ctgctcgcc 50
 gcttcggctc tggctgtgtg tgctctctct gccctcagcg caggggccgcc 100
 agaaggagtc aggttcaaaa tggaaagtat ttattgacca aattaacagg 150
 tctttggaga attacgaacc atgttcaagt caaaactgca gctgctacca 200
 tgggtgcata gaagaggatc taactccttt ccgaggaggc atctccagga 250
 agatgatggc agaggtatgc agacggaagc tagggaccca ctatcagatc 300
 actaagaaca gactgtaccg ggaaaatgac tgcattgttc cctcaagggtg 350
 tagtgggtgt gagcacttta ttttggaagt gatcgggcgt ctccctgaca 400
 tggagatggt gatcaatgta cgagattatc ctcagggttc taaatggatg 450
 gagcctgcca tccagtcctt ctccctcagt aagacatcag agtaccatga 500
 tatoatgtat cctgcttgga cattttgga agggggacct gctgtttggc 550
 caatttatcc tacaggtctt ggacggtggg acctcttcag agaagatctg 600
 gtaaggtcag cagcacagtg gccatggaaa aagaaaaact ctacagcata 650
 ttcccgagga tcaaggacaa gtccagaacg agatctctc attctctgt 700
 ctcgaaaaa cccaaaaact gttgatgcag aatacaccaa aaaccaggcc 750
 tggaaatcta tgaaagatag cttaggaaag ccagctgcta aggatgtcca 800
 tcttgggtat cactgcaaat acaagtatct gttaaatttt cgaggcgtag 850
 ctgcaagttt ccggtttaaa cacctcttcc tgtgtggctc actgttttcc 900
 catgttgggt atgagtggct agaattcttc tatccacagc tgaagccatg 950
 ggttcactat atcccagtc aacagatct ctccaatgtc caagagctgt 1000

tacaatttgt aaaagcaaat gatgatgtag ctcaagagat tgctgaaagg 1050
 ggaagccagt ttattaggaa ccatttgcag atggatgaca tcacctgtta 1100
 ctgggagaa cctcttgagt aatactctaa attcctgtct tataatgtaa 1150
 cgagaaggaa aggttatgat caaattattc ccaaaatgtt gaaaactgaa 1200
 ctatagtagt catcatagga ccatagtcct ctttgtggca acagatctca 1250
 gatatcctac ggtgagaagc ttaccataag cttggctcct ataccttgaa 1300
 tatctgctat caagccaaat acctgggttt ccttatcatg ctgcaccag 1350
 agcaactcct gagaaagatt taaaatgtgt ctaatacaact gatatgaagc 1400
 agttcaactt ttgggatgaa taaggaccag aaatcgtgag atgtggattt 1450
 tgaacccaac tctaccttc attttcttaa gaccaatcac agcttgtgcc 1500
 tcagatcatc cacctgtgtg agtccatcac tgtgaaattg actgtgtcca 1550
 tgtgatgatg cctttgtcc cattatttgg agcagaaaat tgcctatttg 1600
 gaagtagtac aactcattgc tgggaattgtg aaattattca agcggtgac 1650
 tctgtcactt tattttaatg taggaaacc tatggggttt atgaaaaata 1700
 cttggggatc attctctgaa tggctaaagg aagcggtagc catgccatgc 1750
 aatgatgtag gagttctctt ttgtaaaacc ataaactctg ttactcagga 1800
 ggtttctata atgccacata gaaagaggcc aattgcata gtaattattg 1850
 caattggatt tcagggtccc tttttgtgcc ttcatgccct acttcttaat 1900
 gcctctctaa agccaaa 1917

<210> 205
 <211> 392
 <212> PRT
 <213> Homo sapiens

<400> 205
 Met Glu Trp Trp Ala Ser Ser Pro Leu Arg Leu Trp Leu Leu Leu
 1 5 10 15
 Phe Leu Leu Pro Ser Ala Gln Gly Arg Gln Lys Glu Ser Gly Ser
 20 25 30
 Lys Trp Lys Val Phe Ile Asp Gln Ile Asn Arg Ser Leu Glu Asn
 35 40 45
 Tyr Glu Pro Cys Ser Ser Gln Asn Cys Ser Cys Tyr His Gly Val
 50 55 60
 Ile Glu Glu Asp Leu Thr Pro Phe Arg Gly Gly Ile Ser Arg Lys
 65 70 75
 Met Met Ala Glu Val Val Arg Arg Lys Leu Gly Thr His Tyr Gln
 80 85 90
 Ile Thr Lys Asn Arg Leu Tyr Arg Glu Asn Asp Cys Met Phe Pro

	95		100		105
Ser Arg Cys Ser	Gly Val Glu His Phe	Ile Leu Glu Val Ile	Gly		
	110	115	120		
Arg Leu Pro Asp	Met Glu Met Val Ile	Asn Val Arg Asp Tyr	Pro		
	125	130	135		
Gln Val Pro Lys	Trp Met Glu Pro Ala	Ile Pro Val Phe Ser	Phe		
	140	145	150		
Ser Lys Thr Ser	Glu Tyr His Asp Ile	Met Tyr Pro Ala Trp	Thr		
	155	160	165		
Phe Trp Glu Gly	Pro Ala Val Trp	Pro Ile Tyr Pro Thr	Gly		
	170	175	180		
Leu Gly Arg Trp	Asp Leu Phe Arg Glu	Asp Leu Val Arg Ser	Ala		
	185	190	195		
Ala Gln Trp Pro	Trp Lys Lys Lys Asn	Ser Thr Ala Tyr Phe	Arg		
	200	205	210		
Gly Ser Arg Thr	Ser Pro Glu Arg Asp	Pro Leu Ile Leu Leu	Ser		
	215	220	225		
Arg Lys Asn Pro	Lys Leu Val Asp Ala	Glu Tyr Thr Lys Asn	Gln		
	230	235	240		
Ala Trp Lys Ser	Met Lys Asp Thr Leu	Gly Lys Pro Ala Ala	Lys		
	245	250	255		
Asp Val His Leu	Val Asp His Cys Lys	Tyr Lys Tyr Leu Phe	Asn		
	260	265	270		
Phe Arg Gly Val	Ala Ala Ser Phe Arg	Phe Lys His Leu Phe	Leu		
	275	280	285		
Cys Gly Ser Leu	Val Phe His Val Gly	Asp Glu Trp Leu Glu	Phe		
	290	295	300		
Phe Tyr Pro Gln	Leu Lys Pro Trp Val	His Tyr Ile Pro Val	Lys		
	305	310	315		
Thr Asp Leu Ser	Asn Val Gln Glu Leu	Leu Gln Phe Val Lys	Ala		
	320	325	330		
Asn Asp Asp Val	Ala Gln Glu Ile Ala	Glu Arg Gly Ser Gln	Phe		
	335	340	345		
Ile Arg Asn His	Leu Gln Met Asp Asp	Ile Thr Cys Tyr Trp	Glu		
	350	355	360		
Asn Leu Leu Ser	Glu Tyr Ser Lys Phe	Leu Ser Tyr Asn Val	Thr		
	365	370	375		
Arg Arg Lys Gly	Tyr Asp Gln Ile Ile	Pro Lys Met Leu Lys	Thr		
	380	385	390		
Glu Leu					

<210> 206

<211> 1425
<212> DNA
<213> Homo sapiens

<400> 206
caccctccca tttctcgcca tggccctgc actgctcctg atccctgctg 50
cctcgctcct tttcactcct gcccttggca ccggagtggg gttcgtggcg 100
tttaactccc ttcgccact tcttgagggg atcccgagt ctggtgtgct 150
ggatgcccg cagggatggc tggctgcct gcaggaccgc agcatcctt 200
ccccctggc atgggatctg gggctcctgc ttctatttgt tgggcagcac 250
agcctcatgg cagctgaaag agtgaaggca tggacatccc ggtactttgg 300
ggctcctcag aggtcactgt atgtggcctg cactgccctg gccttgacgc 350
tggtgatgcg gtactgggag ccataccca aaggccctgt gttgtgggag 400
gtcggggtg agccatgggc cactgggtg ccgctcctct gctttgtgct 450
ccatgtcctc tcttggtccc tcatctttag catccttctc gtctttgact 500
atgctgagct catgggcctc aaacagggtat actaccatgt gctggggctg 550
ggcgagcctc tggccctgaa gtctcccgg gctctcagac tcttctccca 600
cctgcgccac ccagtgtgtg tggagctgct gacagtgtct tgggtgtgtc 650
ctaccctggg cagggacct ctctccttg ctttctcct taccctctac 700
ctgggcctgg ctacgggct tgatcagcaa gacctccgt acctccgggc 750
ccagctacaa agaaaactcc acctgctctc tcggcccgag gatggggagg 800
cagagtggg agctcactct ggttacaagc cctgttcttc ctctccact 850
gaattctaaa tccttaacat ccaggccctg gctgcttcat gccagaggcc 900
caaatccatg gactgaagga gatgccctt ctactacttg agactttatt 950
ctctgggtcc agctccatac cctaaattct gagtttcagc cactgaactc 1000
caaggccac ttctaccag caaggaagag tggggtatgg aagtcactg 1050
tcccttcaact gtttagagca tgacactctc cccctcaaca gcctcctgag 1100
aaggaaagga tctgccctga cactccctt ggcactgtta cttgctctg 1150
cgctcagggt gtcccttct gcaccgtgg cttccactcc aagaagggtg 1200
accagggtct gcaagttcaa cggctatagc tgtccctoca ggccccaacc 1250
ttgctcacc actccggcc ctagtctctg cactcctta ggccctgct 1300
ctgggctcag accccaacct agtcaagggg attctcctgc tcttaactcg 1350
atgacttggg gctccctgct ctcccgagga agatgctctg caggaaaata 1400
aaagtcagcc tttttctaaa aaaaa 1425

<210> 207
 <211> 262
 <212> PRT
 <213> Homo sapiens

<400> 207
 Met Ala Pro Ala Leu Leu Leu Ile Pro Ala Ala Leu Ala Ser Phe
 1 5 10 15
 Ile Leu Ala Phe Gly Thr Gly Val Glu Phe Val Arg Phe Thr Ser
 20 25 30
 Leu Arg Pro Leu Leu Gly Gly Ile Pro Glu Ser Gly Gly Pro Asp
 35 40 45
 Ala Arg Gln Gly Trp Leu Ala Ala Leu Gln Asp Arg Ser Ile Leu
 50 55 60
 Ala Pro Leu Ala Trp Asp Leu Gly Leu Leu Leu Phe Val Gly
 65 70 75
 Gln His Ser Leu Met Ala Ala Glu Arg Val Lys Ala Trp Thr Ser
 80 85 90
 Arg Tyr Phe Gly Val Leu Gln Arg Ser Leu Tyr Val Ala Cys Thr
 95 100 105
 Ala Leu Ala Leu Gln Leu Val Met Arg Tyr Trp Glu Pro Ile Pro
 110 115 120
 Lys Gly Pro Val Leu Trp Glu Ala Arg Ala Glu Pro Trp Ala Thr
 125 130 135
 Trp Val Pro Leu Leu Cys Phe Val Leu His Val Ile Ser Trp Leu
 140 145 150
 Leu Ile Phe Ser Ile Leu Leu Val Phe Asp Tyr Ala Glu Leu Met
 155 160 165
 Gly Leu Lys Gln Val Tyr Tyr His Val Leu Gly Leu Gly Glu Pro
 170 175 180
 Leu Ala Leu Lys Ser Pro Arg Ala Leu Arg Leu Phe Ser His Leu
 185 190 195
 Arg His Pro Val Cys Val Glu Leu Leu Thr Val Leu Trp Val Val
 200 205 210
 Pro Thr Leu Gly Thr Asp Arg Leu Leu Leu Ala Phe Leu Leu Thr
 215 220 225
 Leu Tyr Leu Gly Leu Ala His Gly Leu Asp Gln Gln Asp Leu Arg
 230 235 240
 Tyr Leu Arg Ala Gln Leu Gln Arg Lys Leu His Leu Leu Ser Arg
 245 250 255
 Pro Gln Asp Gly Glu Ala Glu
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<210> 208
 <211> 2095
 <212> DNA

<213> Homo sapiens

<400> 208

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caacaaaaaa cttaagcttt aatttcatct ggaattccac agttttctta 200
gctccctgga cccggttgac ctgttggtct tcccgcgtg ctgctctatc 250
acgtggtgct ctccgactac tcaccccgag tgtaagaagc ettcggctcg 300
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 <211> 331
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Arg Val Asn Trp Met Tyr Phe Tyr Glu Tyr Glu Pro Ile Tyr Arg
 50 55 60
 Gln Asp Phe His Phe Thr Leu Arg Glu His Ser Asn Cys Ser His
 65 70 75
 Gln Asn Pro Phe Leu Val Ile Leu Val Thr Ser His Pro Ser Asp
 80 85 90
 Val Lys Ala Arg Gln Ala Ile Arg Val Thr Trp Gly Glu Lys Lys
 95 100 105
 Ser Trp Trp Gly Tyr Glu Val Leu Thr Phe Phe Leu Leu Gly Gln
 110 115 120
 Glu Ala Glu Lys Glu Asp Lys Met Leu Ala Leu Ser Leu Glu Asp
 125 130 135
 Glu His Leu Leu Tyr Gly Asp Ile Ile Arg Gln Asp Phe Leu Asp
 140 145 150
 Thr Tyr Asn Asn Leu Thr Leu Lys Thr Ile Met Ala Phe Arg Trp
 155 160 165

Val Thr Glu Phe Cys Pro Asn Ala Lys Tyr Val Met Lys Thr Asp
170 175 180

Thr Asp Val Phe Ile Asn Thr Gly Asn Leu Val Lys Tyr Leu Leu
185 190 195

Asn Leu Asn His Ser Glu Lys Phe Phe Thr Gly Tyr Pro Leu Ile
200 205 210

Asp Asn Tyr Ser Tyr Arg Gly Phe Tyr Gln Lys Thr His Ile Ser
215 220 225

Tyr Gln Glu Tyr Pro Phe Lys Val Phe Pro Tyr Cys Ser Gly
230 235 240

Leu Gly Tyr Ile Met Ser Arg Asp Leu Val Pro Arg Ile Tyr Glu
245 250 255

Met Met Gly His Val Lys Pro Ile Lys Phe Glu Asp Val Tyr Val
260 265 270

Gly Ile Cys Leu Asn Leu Leu Lys Val Asn Ile His Ile Pro Glu
275 280 285

Asp Thr Asn Leu Phe Phe Leu Tyr Arg Ile His Leu Asp Val Cys
290 295 300

Gln Leu Arg Arg Val Ile Ala Ala His Gly Phe Ser Ser Lys Glu
305 310 315

Ile Ile Thr Phe Trp Gln Val Met Leu Arg Asn Thr Thr Cys His
320 325 330

Tyr

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<211> 745
<212> DNA
<213> Homo sapiens

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gtgtcaacaa tgaacacaat gtggccaatg ttgacaataa caacggatgg 200
gactcctgga attccatctg ggattatgga aatggctttg ctgcaaccag 250
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tgccctccat tcaatccctt gatgactgg tcaaggaaaa gaagcttcag 350
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tgtgtcgtgg gattccaaca tacatggctg aggagatgca agaggcaagc 500
ctgttttttt actcaggaac gtgctacacg accagtgtag tatggattgt 550

ggacattttcc ttctgtggag acacggtgga gaactaaaca atttttttaa 600
gccactatgg atttagtcat ctgaatatgc tgtgcagaaa aaatatgggc 650
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<210> 211

<211> 185

<212> PRT

<213> Homo sapiens

<400> 211

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Ala	Pro	Ala	Leu	Ala	Asn	Tyr	Asn	Ile	Asn	Val	Asn	Asp	Asp	Asn
				20					25					30
Asn	Asn	Ala	Gly	Ser	Gly	Gln	Gln	Ser	Val	Ser	Val	Asn	Asn	Glu
				35					40					45
His	Asn	Val	Ala	Asn	Val	Asp	Asn	Asn	Asn	Gly	Trp	Asp	Ser	Trp
				50					55					60
Asn	Ser	Ile	Trp	Asp	Tyr	Gly	Asn	Gly	Phe	Ala	Ala	Thr	Arg	Leu
				65					70					75
Phe	Gln	Lys	Lys	Thr	Cys	Ile	Val	His	Lys	Met	Asn	Lys	Glu	Val
				80					85					90
Met	Pro	Ser	Ile	Gln	Ser	Leu	Asp	Ala	Leu	Val	Lys	Glu	Lys	Lys
				95					100					105
Leu	Gln	Gly	Lys	Gly	Pro	Gly	Gly	Pro	Pro	Pro	Lys	Gly	Leu	Met
				110					115					120
Tyr	Ser	Val	Asn	Pro	Asn	Lys	Val	Asp	Asp	Leu	Ser	Lys	Phe	Gly
				125					130					135
Lys	Asn	Ile	Ala	Asn	Met	Cys	Arg	Gly	Ile	Pro	Thr	Tyr	Met	Ala
				140					145					150
Glu	Glu	Met	Gln	Glu	Ala	Ser	Leu	Phe	Phe	Tyr	Ser	Gly	Thr	Cys
				155					160					165
Tyr	Thr	Thr	Ser	Val	Leu	Trp	Ile	Val	Asp	Ile	Ser	Phe	Cys	Gly
				170					175					180
Asp	Thr	Val	Glu	Asn										
				185										

<210> 212

<211> 1706

<212> DNA

<213> Homo sapiens

<400> 212

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 ttatatgcta gaatatgagg atgtgaatat aataagaga agaaaaaaga 250
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 tgaattactg gaaaaagaag tagaaaaaag aaaagtagcc ttacaagaag 600
 ccaaattaaa agcaaaagga ttgaatccgg atggaactcc agccctttca 650
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 aagaactctg ggatagacaa caggcttcca aaagccctta caatggtgta 800
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 gtcaagaaca cgatcacgtt ctgatcaca tactccaaga agacactata 900
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<210> 213

<211> 299

<212> PRT

<213> Homo sapiens

<400> 213

Met	Asn	Asp	Ser	Leu	Arg	Thr	Asn	Val	Phe	Val	Arg	Phe	Gln	Pro
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Glu	Thr	Ile	Ala	Cys	Ala	Cys	Ile	Tyr	Leu	Ala	Ala	Arg	Ala	Leu
			20						25					30
Gln	Ile	Pro	Leu	Pro	Thr	Arg	Pro	His	Trp	Phe	Leu	Leu	Phe	Gly
			35						40					45
Thr	Thr	Glu	Glu	Glu	Ile	Gln	Glu	Ile	Cys	Ile	Glu	Thr	Leu	Arg
			50						55					60
Leu	Tyr	Thr	Arg	Lys	Lys	Pro	Asn	Tyr	Glu	Leu	Leu	Glu	Lys	Glu
			65						70					75
Val	Glu	Lys	Arg	Lys	Val	Ala	Leu	Gln	Glu	Ala	Lys	Leu	Lys	Ala
			80						85					90
Lys	Gly	Leu	Asn	Pro	Asp	Gly	Thr	Pro	Ala	Leu	Ser	Thr	Leu	Gly
			95						100					105
Gly	Phe	Ser	Pro	Ala	Ser	Lys	Pro	Ser	Ser	Pro	Arg	Glu	Val	Lys
			110						115					120
Ala	Glu	Glu	Lys	Ser	Pro	Ile	Ser	Ile	Asn	Val	Lys	Thr	Val	Lys
			125						130					135
Lys	Glu	Pro	Glu	Asp	Arg	Gln	Gln	Ala	Ser	Lys	Ser	Pro	Tyr	Asn
			140						145					150
Gly	Val	Arg	Lys	Asp	Ser	Lys	Arg	Ser	Arg	Asn	Ser	Arg	Ser	Ala
			155						160					165
Ser	Arg	Ser	Arg	Ser	Arg	Thr	Arg	Ser	Arg	Ser	Arg	Ser	His	Thr
			170						175					180
Pro	Arg	Arg	His	Tyr	Asn	Asn	Arg	Arg	Ser	Arg	Ser	Gly	Thr	Tyr
			185						190					195
Ser	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Ser	His	Ser	Glu	Ser	Pro
			200						205					210
Arg	Arg	His	His	Asn	His	Gly	Ser	Pro	His	Leu	Lys	Ala	Lys	His
			215						220					225
Thr	Arg	Asp	Asp	Leu	Lys	Ser	Ser	Asn	Arg	His	Gly	His	Lys	Arg
			230						235					240
Lys	Lys	Ser	Arg	Ser	Arg	Ser	Gln	Ser	Lys	Ser	Arg	Asp	His	Ser
			245						250					255
Asp	Ala	Ala	Lys	Lys	His	Arg	His	Glu	Arg	Gly	His	His	Arg	Asp
			260						265					270
Arg	Arg	Glu	Arg	Ser	Arg	Ser	Phe	Glu	Arg	Ser	His	Lys	Ser	Lys

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<210> 214

<211> 730

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 72-73, 85, 91, 127, 226, 268, 454, 484, 513, 566, 663

<223> unknown base

<400> 214

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 ggattgtaat atgaaattat ttaaaagggc ttcgctcata tataggaaaa 200
 tcgcatatgg tcttagtatt aaattnttat tgcttactga tttttttgag 250
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 agaactggtt tgtttacatg caagcttata gttgaaatat ttttcaggaa 400
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 agccaaacta tgaattactg gaaaaagaag tagaaaaaag aaaagtagcc 650
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<210> 215

<211> 1807

<212> DNA

<213> Homo sapiens

<400> 215

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<210> 216

<211> 479
 <212> PRT
 <213> Homo sapiens

<400> 216
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 35 40 45
 Glu Glu Leu Arg Ala Leu Ala Gly Lys Pro Arg Pro Arg Gly Arg
 50 55 60
 Lys Glu Arg Trp Ala Asn Gly Leu Ser Glu Glu Lys Pro Leu Ser
 65 70 75
 Val Pro Arg Asp Ala Pro Phe Gln Leu Glu Thr Cys Pro Leu Thr
 80 85 90
 Thr Val Asp Ala Leu Val Leu Arg Phe Phe Leu Glu Tyr Gln Trp
 95 100 105
 Phe Val Asp Phe Ala Val Tyr Ser Gly Gly Val Tyr Leu Phe Thr
 110 115 120
 Glu Ala Tyr Tyr Tyr Met Leu Gly Pro Ala Lys Glu Thr Asn Ile
 125 130 135
 Ala Val Phe Trp Cys Leu Leu Thr Val Thr Phe Ser Ile Lys Met
 140 145 150
 Phe Leu Thr Val Thr Arg Leu Tyr Phe Ser Ala Glu Glu Gly Gly
 155 160 165
 Glu Arg Ser Val Cys Leu Thr Phe Ala Phe Leu Phe Leu Leu Leu
 170 175 180
 Ala Met Leu Val Gln Val Val Arg Glu Glu Thr Leu Glu Leu Gly
 185 190 195
 Leu Glu Pro Gly Leu Ala Ser Met Thr Gln Asn Leu Glu Pro Leu
 200 205 210
 Leu Lys Lys Gln Gly Trp Asp Trp Ala Leu Pro Val Ala Lys Leu
 215 220 225
 Ala Ile Arg Val Gly Leu Ala Val Val Gly Ser Val Leu Gly Ala
 230 235 240
 Phe Leu Thr Phe Pro Gly Leu Arg Leu Ala Gln Thr His Arg Asp
 245 250 255
 Ala Leu Thr Met Ser Glu Asp Arg Pro Met Leu Gln Phe Leu Leu
 260 265 270
 His Thr Ser Phe Leu Ser Pro Leu Phe Ile Leu Trp Leu Trp Thr
 275 280 285
 Lys Pro Ile Ala Arg Asp Phe Leu His Gln Pro Pro Phe Gly Glu

	290		295		300
Thr Arg Phe Ser	Leu Leu Ser Asp Ser	Ala Phe Asp Ser Gly Arg			
	305		310		315
Leu Trp Leu Leu	Val Val Leu Cys Leu	Leu Arg Leu Ala Val Thr			
	320		325		330
Arg Pro His Leu	Gln Ala Tyr Leu Cys	Leu Ala Lys Ala Arg Val			
	335		340		345
Glu Gln Leu Arg	Arg Glu Ala Gly Arg	Ile Glu Ala Arg Glu Ile			
	350		355		360
Gln Gln Arg Val	Val Arg Val Tyr Cys	Tyr Val Thr Val Val Ser			
	365		370		375
Leu Gln Tyr Leu	Thr Pro Leu Ile Leu	Thr Leu Asn Cys Thr Leu			
	380		385		390
Leu Leu Lys Thr	Leu Gly Gly Tyr Ser	Trp Gly Leu Gly Pro Ala			
	395		400		405
Pro Leu Leu Ser	Pro Asp Pro Ser Ser	Ala Ser Ala Ala Pro Ile			
	410		415		420
Gly Ser Gly Glu	Asp Glu Val Gln Gln	Thr Ala Ala Arg Ile Ala			
	425		430		435
Gly Ala Leu Gly	Gly Leu Leu Thr Pro	Leu Phe Leu Arg Gly Val			
	440		445		450
Leu Ala Tyr Leu	Ile Trp Trp Thr Ala	Ala Cys Gln Leu Leu Ala			
	455		460		465
Ser Leu Phe Gly	Leu Tyr Phe His Gln	Ile Leu Ala Gly Ser			
	470		475		

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 <211> 574
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 5, 146
 <223> unknown base

<400> 217
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 gctggctgct ctgtaacggc agtttggtcc gatacaagca cccgtnttga 150
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 agcgggtggc caatggcctt agtgaggaga agccactgtc tgtgccccga 250
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 ggctctgcgc ttcttctgga agtaccagtg gtttggggac ttgtctgtgt 350

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<210> 218

<211> 2571

<212> DNA

<213> Homo sapiens

<400> 218

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 ttgtgatcta ctgattgtgg gggcatggca aggtttgctt aaaggagctt 150
 ggctggtttg ggcccttgta gctgacagaa ggtggcgagg gagaatgcag 200
 cacactgctc ggagaatgaa ggcgcttctg ttgctggtct tgccttggtc 250
 cagtctgtct aactacattg acaatgtggg caacctgcac ttcctgtatt 300
 cagaactctg taaagggtgc tcccactacg gcctgaccaa agataggaag 350
 aggcgctcac aagatggctg tccagacggc tgtgcgagcc tcacagccac 400
 ggctccctcc ccagaggttt ctgcagctgc caccatctcc ttaatgacag 450
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<210> 219
 <211> 632
 <212> PRT
 <213> Homo sapiens

<400> 219
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	20	25	
Leu Cys Lys Gly	Ala Ser His Tyr Gly	Leu Thr Lys Asp Arg	Lys 45
	35	40	
Arg Arg Ser Gln	Asp Gly Cys Pro Asp	Gly Cys Ala Ser Leu	Thr 60
	50	55	
Ala Thr Ala Pro	Ser Pro Glu Val Ser	Ala Ala Thr Ile	Ser 75
	65	70	
Leu Met Thr Asp	Glu Pro Gly Leu Asp	Asn Pro Ala Tyr Val	Ser 90
	80	85	
Ser Ala Glu Asp	Gly Gln Pro Ala Ile	Ser Pro Val Asp Ser	Gly 105
	95	100	
Arg Ser Asn Arg	Thr Arg Ala Arg Pro	Phe Glu Arg Ser Thr	Ile 120
	110	115	
Arg Ser Arg Ser	Phe Lys Lys Ile Asn	Arg Ala Leu Ser Val	Leu 135
	125	130	
Arg Arg Thr Lys	Ser Gly Ser Ala Val	Ala Asn His Ala Asp	Gln 150
	140	145	
Gly Arg Glu Asn	Ser Glu Asn Thr Thr	Ala Pro Glu Val Phe	Pro 165
	155	160	
Arg Leu Tyr His	Leu Ile Pro Asp Gly	Glu Ile Thr Ser Ile	Lys 180
	170	175	
Ile Asn Arg Val	Asp Pro Ser Glu Ser	Leu Ser Ile Arg Leu	Val 195
	185	190	
Gly Gly Ser Glu	Thr Pro Leu Val His	Ile Ile Ile Gln His	Ile 210
	200	205	
Tyr Arg Asp Gly	Val Ile Ala Arg Asp	Gly Arg Leu Leu Pro	Gly 225
	215	220	
Asp Ile Ile Leu	Lys Val Asn Gly Met	Asp Ile Ser Asn Val	Pro 240
	230	235	
His Asn Tyr Ala	Val Arg Leu Leu Arg	Gln Pro Cys Gln Val	Leu 255
	245	250	
Trp Leu Thr Val	Met Arg Glu Gln Lys	Phe Arg Ser Arg Asn	Asn 270
	260	265	
Gly Gln Ala Pro	Asp Ala Tyr Arg Pro	Arg Asp Asp Ser Phe	His 285
	275	280	
Val Ile Leu Asn	Lys Ser Ser Pro Glu	Glu Gln Leu Gly Ile	Lys 300
	290	295	
Leu Val Arg Lys	Val Asp Glu Pro Gly	Val Phe Ile Phe Asn	Val 315
	305	310	
Leu Asp Gly Gly	Val Ala Tyr Arg His	Gly Gln Leu Glu Glu	Asn

320	325	330
Asp Arg Val Leu Ala Ile Asn Gly His	Asp Leu Arg Tyr Gly Ser	
335	340	345
Pro Glu Ser Ala Ala His Leu Ile Gln	Ala Ser Glu Arg Arg Val	
350	355	360
His Leu Val Val Ser Arg Gln Val Arg	Gln Arg Ser Pro Asp Ile	
365	370	375
Phe Gln Glu Ala Gly Trp Asn Ser Asn	Gly Ser Trp Ser Pro Gly	
380	385	390
Pro Gly Glu Arg Ser Asn Thr Pro Lys	Pro Leu His Pro Thr Ile	
395	400	405
Thr Cys His Glu Lys Val Val Asn Ile	Gln Lys Asp Pro Gly Glu	
410	415	420
Ser Leu Gly Met Thr Val Ala Gly Gly	Ala Ser His Arg Glu Trp	
425	430	435
Asp Leu Pro Ile Tyr Val Ile Ser Val	Glu Pro Gly Gly Val Ile	
440	445	450
Ser Arg Asp Gly Arg Ile Lys Thr Gly	Asp Ile Leu Leu Asn Val	
455	460	465
Asp Gly Val Glu Leu Thr Glu Val Ser	Arg Ser Glu Ala Val Ala	
470	475	480
Leu Leu Lys Arg Thr Ser Ser Ser Ile	Val Leu Lys Ala Leu Glu	
485	490	495
Val Lys Glu Tyr Glu Pro Gln Glu Asp	Cys Ser Ser Pro Ala Ala	
500	505	510
Leu Asp Ser Asn His Asn Met Ala Pro	Pro Ser Asp Trp Ser Pro	
515	520	525
Ser Trp Val Met Trp Leu Glu Leu Pro	Arg Cys Leu Tyr Asn Cys	
530	535	540
Lys Asp Ile Val Leu Arg Arg Asn Thr	Ala Gly Ser Leu Gly Phe	
545	550	555
Cys Ile Val Gly Gly Tyr Glu Glu Tyr	Asn Gly Asn Lys Pro Phe	
560	565	570
Phe Ile Lys Ser Ile Val Glu Gly Thr	Pro Ala Tyr Asn Asp Gly	
575	580	585
Arg Ile Arg Cys Gly Asp Ile Leu Leu	Ala Val Asn Gly Arg Ser	
590	595	600
Thr Ser Gly Met Ile His Ala Cys Leu	Ala Arg Leu Leu Lys Glu	
605	610	615
Leu Lys Gly Arg Ile Thr Leu Thr Ile	Val Ser Trp Pro Gly Thr	
620	625	630
Phe Leu		

<210> 220
 <211> 773
 <212> DNA
 <213> Homo sapiens

<400> 220
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 aggatagaag ctgcacaggg cagctttact tactccagca ccttctctc 100
 ccaggcaaat ggtgctgacc atctttggga tacaatctca tggatacgag 150
 gtttttaaca tcactagccc aagcaacaat ggtggcaatg ttcaggagac 200
 agtgacaatt gataatgaaa aaaataccgc catcggttaac atccatgcag 250
 gatcatgctc ttctaccaca atttttgact ataaacatgg ctacattgca 300
 tccagggtgc tctccgaag agcctgcttt atoctgaaga tggaccatca 350
 gaacatccct cctctgaaca atctccaatg gtacatctat gagaaacagg 400
 ctctggacaa catgttctcc aacaaataca cctgggtcaa gtacaacct 450
 ctggagctc tgatcaaaga cgtggattgg ttctgcttg ggtcaccat 500
 tgagaaactc tgcaaacata tccctttgta taagggggaa gtggttgaa 550
 acacacataa tgtcgtgtgt ggaggctgtg caaaggctgg gtcctgggg 600
 atcttgggaa tttcaatctg tgcagacatt catgttttag atgattagcc 650
 ctctgtttt atcttttcaa agaaatacat ccttggttta cactcaaaa 700
 tcaaattaaa ttctttccca atgcccacac taattttgag attcagtcag 750
 aaatataaa tgctgtattt ata 773

<210> 221
 <211> 184
 <212> PRT
 <213> Homo sapiens

<400> 221
 Met Lys Ile Leu Val Ala Phe Leu Val Val Leu Thr Ile Phe Gly
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 Ile Gln Ser His Gly Tyr Glu Val Phe Asn Ile Ile Ser Pro Ser
 20 25 30
 Asn Asn Gly Gly Asn Val Gln Glu Thr Val Thr Ile Asp Asn Glu
 35 40 45
 Lys Asn Thr Ala Ile Val Asn Ile His Ala Gly Ser Cys Ser Ser
 50 55 60
 Thr Thr Ile Phe Asp Tyr Lys His Gly Tyr Ile Ala Ser Arg Val
 65 70 75
 Leu Ser Arg Arg Ala Cys Phe Ile Leu Lys Met Asp His Gln Asn
 80 85 90

Ile Pro Pro Leu Asn Asn Leu Gln Trp Tyr Ile Tyr Glu Lys Gln
95 100 105

Ala Leu Asp Asn Met Phe Ser Asn Lys Tyr Thr Trp Val Lys Tyr
110 115 120

Asn Pro Leu Glu Ser Leu Ile Lys Asp Val Asp Trp Phe Leu Leu
125 130 135

Gly Ser Pro Ile Glu Lys Leu Cys Lys His Ile Pro Leu Tyr Lys
140 145 150

Gly Glu Val Val Glu Asn Thr His Asn Val Gly Ala Gly Gly Cys
155 160 165

Ala Lys Ala Gly Leu Leu Gly Ile Leu Gly Ile Ser Ile Cys Ala
170 175 180

Asp Ile His Val

<210> 222
<211> 992
<212> DNA
<213> Homo sapiens

<400> 222
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tgccagcagc ttctccaagg cacgggagga agaaattacc cctgtgtgtc 150
ccattgccta caaagtcctg gaagttttcc ccaaaggccg ctgggtgctc 200
ataacctgct gtgcacccca gccaccaccg cccatcacct attccctctg 250
tggaaccaag aacatcaagg tggccaagaa ggtggtgaag acccagcagc 300
cggcctcctt caacctcaac gtcacactca agtccagtc agacctgctc 350
acctacttct gccggggctc ctccacctca ggtgcccattg tggacagtgc 400
caggctacag atgcactggg agctgtggtc caagccagtg tctgagctgc 450
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gaaggatggg cagggtocacc tgcagcagag accatgccac aggcagcctg 600
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gctgcaaaca acgccaatgt ccagcacagc gccctcacag tgggtgcccc 700
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agccatgtag aatgaaccgt ccagagagcc aagcacggca gaggactgca 900

ggccatcagc gtgcactgtt cgtatttgga gttcatgcaa aatgagtgtg 950

ttttagctgc tcttgccaca aaaaaaaaaa aaaaaaaaaa aa 992

<210> 223

<211> 265

<212> PRT

<213> Homo sapiens

<400> 223

Met Gly Leu Pro Gly Leu Phe Cys Leu Ala Val Leu Ala Ala Ser
1 5 10 15

Ser Phe Ser Lys Ala Arg Glu Glu Glu Ile Thr Pro Val Val Ser
20 25 30

Ile Ala Tyr Lys Val Leu Glu Val Phe Pro Lys Gly Arg Trp Val
35 40 45

Leu Ile Thr Cys Cys Ala Pro Gln Pro Pro Pro Ile Thr Tyr
50 55 60

Ser Leu Cys Gly Thr Lys Asn Ile Lys Val Ala Lys Lys Val Val
65 70 75

Lys Thr His Glu Pro Ala Ser Phe Asn Leu Asn Val Thr Leu Lys
80 85 90

Ser Ser Pro Asp Leu Leu Thr Tyr Phe Cys Arg Ala Ser Ser Thr
95 100 105

Ser Gly Ala His Val Asp Ser Ala Arg Leu Gln Met His Trp Glu
110 115 120

Leu Trp Ser Lys Pro Val Ser Glu Leu Arg Ala Asn Phe Thr Leu
125 130 135

Gln Asp Arg Gly Ala Gly Pro Arg Val Glu Met Ile Cys Gln Ala
140 145 150

Ser Ser Gly Ser Pro Pro Ile Thr Asn Ser Leu Ile Gly Lys Asp
155 160 165

Gly Gln Val His Leu Gln Gln Arg Pro Cys His Arg Gln Pro Ala
170 175 180

Asn Phe Ser Phe Leu Pro Ser Gln Thr Ser Asp Trp Phe Trp Cys
185 190 195

Gln Ala Ala Asn Asn Ala Asn Val Gln His Ser Ala Leu Thr Val
200 205 210

Val Pro Pro Gly Gly Asp Gln Lys Met Glu Asp Trp Gln Gly Pro
215 220 225

Leu Glu Ser Pro Ile Leu Ala Leu Pro Leu Tyr Arg Ser Thr Arg
230 235 240

Arg Leu Ser Glu Glu Glu Phe Gly Gly Phe Arg Ile Gly Asn Gly
245 250 255

Glu Val Arg Gly Arg Lys Ala Ala Ala Met
260 265

<210> 224
<211> 1297
<212> DNA
<213> Homo sapiens

<400> 224
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ctctctttgc tatgacatca ccgtcatccc taagtccaga cctggaccac 150
ggtggtgtgc ggttcaaggc caggtggatg aaaagacttt tottactat 200
gactgtggca acaagacagt cacacctgtc agtccctgg ggaagaaact 250
aaatgtcaca acggcctgga aagcacagaa ccagtagt agagaggtgg 300
tggacatact tacagagcaa ctgcgtgaca ttcagctgga gaattacaca 350
cccaaggaa cctcacccct gcaggcaagg atgtcttggt agcagaaagc 400
tgaaggacac agcagtgat ctggcagtt cagtttcgat gggcagatct 450
tctctctctt tgactcagag aagagaatgt ggacaacggg tcatctgga 500
gccagaaaga tgaagaaaa gtgggagaat gacaagggtg tggccatgtc 550
cttcattac ttctcaatgg gagactgtat aggatggctt gaggacttct 600
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gagagtctt tagagtgaca ggttaaagct gataccaaaa ggctcctgtg 800
agcaggtct tgatcaaac cgccttctg tctggccagc tgcccacgac 850
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tgatatattaa ataaagagtt ctatttccca aaaaaaaaa aaaaaaa 1297

<210> 225
<211> 246
<212> PRT
<213> Homo sapiens

<400> 225

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Met Ala Ala Ala Ala Thr Lys Ile Leu Leu Cys Leu Pro Leu
 1          5          10          15

Leu Leu Leu Leu Ser Gly Trp Ser Arg Ala Gly Arg Ala Asp Pro
 20          25          30

His Ser Leu Cys Tyr Asp Ile Thr Val Ile Pro Lys Phe Arg Pro
 35          40          45

Gly Pro Arg Trp Cys Ala Val Gln Gly Gln Val Asp Glu Lys Thr
 50          55          60

Phe Leu His Tyr Asp Cys Gly Asn Lys Thr Val Thr Pro Val Ser
 65          70          75

Pro Leu Gly Lys Lys Leu Asn Val Thr Thr Ala Trp Lys Ala Gln
 80          85          90

Asn Pro Val Leu Arg Glu Val Val Asp Ile Leu Thr Glu Gln Leu
 95          100          105

Arg Asp Ile Gln Leu Glu Asn Tyr Thr Pro Lys Glu Pro Leu Thr
 110          115          120

Leu Gln Ala Arg Met Ser Cys Glu Gln Lys Ala Glu Gly His Ser
 125          130          135

Ser Gly Ser Trp Gln Phe Ser Phe Asp Gly Gln Ile Phe Leu Leu
 140          145          150

Phe Asp Ser Glu Lys Arg Met Trp Thr Thr Val His Pro Gly Ala
 155          160          165

Arg Lys Met Lys Glu Lys Trp Glu Asn Asp Lys Val Val Ala Met
 170          175          180

Ser Phe His Tyr Phe Ser Met Gly Asp Cys Ile Gly Trp Leu Glu
 185          190          195

Asp Phe Leu Met Gly Met Asp Ser Thr Leu Glu Pro Ser Ala Gly
 200          205          210

Ala Pro Leu Ala Met Ser Ser Gly Thr Thr Gln Leu Arg Ala Thr
 215          220          225

Ala Thr Thr Leu Ile Leu Cys Cys Leu Leu Ile Ile Leu Pro Cys
 230          235          240

Phe Ile Leu Pro Gly Ile
 245

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<210> 226

<211> 735

<212> DNA

<213> Homo sapiens

<400> 226

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gggaaagcca ttctgaaaac ccattctatac aaactatata ttttcatttc 50
tgctgctagc tgccttgggc ctcacaattt tcaattctgtt ttctgacttt 100
caagttatat accgtggaat ggagttgac ccaaccataa catcgtaggag 150

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gggtttaatt ttggtggtag ccctcaccca attctggtgt ggctttcttt 200
 gcagaggatt ccaccttcaa aatcatgaac tctggtgttt gatcaaaga 250
 gaatttgat tctactctaa aagtcaatat aggacttggc aaaagaagct 300
 agcagaagac tcaacctggc ctcccataaa caggacagat tattcaggtg 350
 atggcaaaaa tggattctac atcaacggag gctatgaaag ccatgaacag 400
 attocaaaaa gaaaactcaa attgggaggc caacccacag aacagcattt 450
 ctggggccagg ctgtaatcag aattgtgttc gtacatgctc aacagcattg 500
 cttttttccc caaaattaac acattgtgga gaagtatga taactctccc 550
 ttacotttcc tctctccatt caagcattca aagtatat tcaatgaatt 600
 aaaccttgca gcaagggacc ttagataggc ttattctgac tgtatgcttt 650
 accaatgaga gaaaaaaatg catttctgt atcatccttt tcaataaact 700
 gtattcattt tgaaaaaaa aaaaaaaaa aaaaa 735

<210> 227
 <211> 115
 <212> PRT
 <213> Homo sapiens

<400> 227
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 Val Val Ala Leu Thr Gln Phe Trp Cys Gly Phe Leu Cys Arg Gly
 20 25 30
 Phe His Leu Gln Asn His Glu Leu Trp Leu Leu Ile Lys Arg Glu
 35 40 45
 Phe Gly Phe Tyr Ser Lys Ser Gln Tyr Arg Thr Trp Gln Lys Lys
 50 55 60
 Leu Ala Glu Asp Ser Thr Trp Pro Pro Ile Asn Arg Thr Asp Tyr
 65 70 75
 Ser Gly Asp Gly Lys Asn Gly Phe Tyr Ile Asn Gly Gly Tyr Glu
 80 85 90
 Ser His Glu Gln Ile Pro Lys Arg Lys Leu Lys Leu Gly Gly Glu
 95 100 105
 Pro Thr Glu Gln His Phe Trp Ala Arg Leu
 110 115

<210> 228
 <211> 2185
 <212> DNA
 <213> Homo sapiens

<400> 228
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 cacaccatga agctcttgtg gcaggtaact gtgcaccacc acacctggaa 100

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 gtgcagccat cgtgctgcc gctcagccg ggcgccagaa ctgcccctcc 200
 gtttgctcgt gcagtaacca gttcagcaag gtggtgtgca cgcgccgggg 250
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 tcatggagaa caacatccag atgatccagg ccgacacctt ccgccacctc 350
 caccacctgg aggtcctgca gttgggcagg aactccatcc ggcagattga 400
 ggtggggggc ttcaacggcc tggccagcct caacaccctg gagctgttcg 450
 acaactggct gacagtcac cctagcgggg cctttgaata cctgtccaag 500
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<210> 229

<211> 653

<212> PRT

<213> Homo sapiens

<400> 229

Met	Lys	Leu	Leu	Trp	Gln	Val	Thr	Val	His	His	His	Thr	Trp	Asn
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Ala	Ile	Leu	Leu	Pro	Phe	Val	Tyr	Leu	Thr	Ala	Gln	Val	Trp	Ile
				20					25					30
Leu	Cys	Ala	Ala	Ile	Ala	Ala	Ala	Ala	Ser	Ala	Gly	Pro	Gln	Asn
				35					40					45
Cys	Pro	Ser	Val	Cys	Ser	Cys	Ser	Asn	Gln	Phe	Ser	Lys	Val	Val
				50					55					60
Cys	Thr	Arg	Arg	Gly	Leu	Ser	Glu	Val	Pro	Gln	Gly	Ile	Pro	Ser
				65					70					75
Asn	Thr	Arg	Tyr	Leu	Asn	Leu	Met	Glu	Asn	Asn	Ile	Gln	Met	Ile
				80					85					90
Gln	Ala	Asp	Thr	Phe	Arg	His	Leu	His	His	Leu	Glu	Val	Leu	Gln
				95					100					105
Leu	Gly	Arg	Asn	Ser	Ile	Arg	Gln	Ile	Glu	Val	Gly	Ala	Phe	Asn
				110					115					120
Gly	Leu	Ala	Ser	Leu	Asn	Thr	Leu	Glu	Leu	Phe	Asp	Asn	Trp	Leu
				125					130					135
Thr	Val	Ile	Pro	Ser	Gly	Ala	Phe	Glu	Tyr	Leu	Ser	Lys	Leu	Arg
				140					145					150
Glu	Leu	Trp	Leu	Arg	Asn	Asn	Pro	Ile	Glu	Ser	Ile	Pro	Ser	Trp
				155					160					165
Ala	Phe	Asn	Arg	Val	Pro	Ser	Leu	Met	Arg	Leu	Asp	Leu	Gly	Glu
				170					175					180
Leu	Lys	Lys	Leu	Glu	Tyr	Ile	Ser	Glu	Gly	Ala	Phe	Glu	Gly	Leu

Phe Asn Leu Lys Tyr	Leu Asn Leu Gly	Met Cys Asn Ile Lys Asp
200	205	210
Met Pro Asn Leu Thr	Pro Leu Val Gly	Leu Glu Glu Leu Glu Met
215	220	225
Ser Gly Asn His Phe	Pro Glu Ile Arg	Pro Gly Ser Phe His Gly
230	235	240
Leu Ser Ser Leu Lys	Lys Leu Trp Val	Met Asn Ser Gln Val Ser
245	250	255
Leu Ile Glu Arg Asn	Ala Phe Asp Gly	Leu Ala Ser Leu Val Glu
260	265	270
Leu Asn Leu Ala His	Asn Asn Leu Ser	Ser Leu Pro His Asp Leu
275	280	285
Phe Thr Pro Leu Arg	Tyr Leu Val Glu	Leu His Leu His His Asn
290	295	300
Pro Trp Asn Cys Asp	Cys Asp Ile Leu Trp	Leu Ala Trp Trp Leu
305	310	315
Arg Glu Tyr Ile Pro	Thr Asn Ser Thr	Cys Cys Gly Arg Cys His
320	325	330
Ala Pro Met His Met	Arg Gly Arg Tyr	Leu Val Glu Val Asp Gln
335	340	345
Ala Ser Phe Gln Cys	Ser Ala Pro Phe	Ile Met Asp Ala Pro Arg
350	355	360
Asp Leu Asn Ile Ser	Glu Gly Arg Met	Ala Glu Leu Lys Cys Arg
365	370	375
Thr Pro Pro Met Ser	Ser Val Lys Trp	Leu Leu Pro Asn Gly Thr
380	385	390
Val Leu Ser His Ala	Ser Arg His Pro	Arg Ile Ser Val Leu Asn
395	400	405
Asp Gly Thr Leu Asn	Phe Ser His Val	Leu Leu Ser Asp Thr Gly
410	415	420
Val Tyr Thr Cys Met	Val Thr Asn Val	Ala Gly Asn Ser Asn Ala
425	430	435
Ser Ala Tyr Leu Asn	Val Ser Thr Ala	Glu Leu Asn Thr Ser Asn
440	445	450
Tyr Ser Phe Phe Thr	Thr Val Thr Val	Glu Thr Thr Glu Ile Ser
455	460	465
Pro Glu Asp Thr Thr	Arg Lys Tyr Lys	Pro Val Pro Thr Thr Ser
470	475	480
Thr Gly Tyr Gln Pro	Ala Tyr Thr Thr	Ser Thr Thr Val Leu Ile
485	490	495
Gln Thr Thr Arg Val	Pro Lys Gln Val	Ala Val Pro Ala Thr Asp

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<210> 231

<211> 720

<212> PRT

<213> Homo sapiens

<400> 231

Met	Glu	Leu	Gly	Cys	Trp	Thr	Gln	Leu	Gly	Leu	Thr	Phe	Leu	Gln	1	5	10	15
Leu	Leu	Leu	Ile	Ser	Ser	Leu	Pro	Arg	Glu	Tyr	Thr	Val	Ile	Asn	20	25	30	
Glu	Ala	Cys	Pro	Gly	Ala	Glu	Trp	Asn	Ile	Met	Cys	Arg	Glu	Cys	35	40	45	
Cys	Glu	Tyr	Asp	Gln	Ile	Glu	Cys	Val	Cys	Pro	Gly	Lys	Arg	Glu	50	55	60	
Val	Val	Gly	Tyr	Thr	Ile	Pro	Cys	Cys	Arg	Asn	Glu	Glu	Asn	Glu	65	70	75	
Cys	Asp	Ser	Cys	Leu	Ile	His	Pro	Gly	Cys	Thr	Ile	Phe	Glu	Asn	80	85	90	
Cys	Lys	Ser	Cys	Arg	Asn	Gly	Ser	Trp	Gly	Gly	Thr	Leu	Asp	Asp	95	100	105	
Phe	Tyr	Val	Lys	Gly	Phe	Tyr	Cys	Ala	Glu	Cys	Arg	Ala	Gly	Trp	110	115	120	
Tyr	Gly	Gly	Asp	Cys	Met	Arg	Cys	Gly	Gln	Val	Leu	Arg	Ala	Pro	125	130	135	
Lys	Gly	Gln	Ile	Leu	Leu	Glu	Ser	Tyr	Pro	Leu	Asn	Ala	His	Cys	140	145	150	
Glu	Trp	Thr	Ile	His	Ala	Lys	Pro	Gly	Phe	Val	Ile	Gln	Leu	Arg	155	160	165	

Phe Val Met Leu Ser	Leu Glu Phe Asp	Tyr Met Cys Gln Tyr Asp
170	175	180
Tyr Val Glu Val Arg	Asp Gly Asp Asn Arg	Asp Gly Gln Ile Ile
185	190	195
Lys Arg Val Cys Gly	Asn Glu Arg Pro Ala	Pro Ile Gln Ser Ile
200	205	210
Gly Ser Ser Leu His	Val Leu Phe His Ser	Asp Gly Ser Lys Asn
215	220	225
Phe Asp Gly Phe His	Ala Ile Tyr Glu Gln	Ile Thr Ala Cys Ser
230	235	240
Ser Ser Pro Cys Phe	His Asp Gly Thr Cys	Val Leu Asp Lys Ala
245	250	255
Gly Ser Tyr Lys Cys	Ala Cys Leu Ala Gly	Tyr Thr Gly Gln Arg
260	265	270
Cys Glu Asn Leu Leu	Glu Glu Arg Asn Cys	Ser Asp Pro Gly Gly
275	280	285
Pro Val Asn Gly Tyr	Gln Lys Ile Thr Gly	Gly Pro Gly Leu Ile
290	295	300
Asn Gly Arg His Ala	Lys Ile Gly Thr Val	Val Ser Phe Phe Cys
305	310	315
Asn Asn Ser Tyr Val	Leu Ser Gly Asn Glu	Lys Arg Thr Cys Gln
320	325	330
Gln Asn Gly Glu Trp	Ser Gly Lys Gln Pro	Ile Cys Ile Lys Ala
335	340	345
Cys Arg Glu Pro Lys	Ile Ser Asp Leu Val	Arg Arg Arg Val Leu
350	355	360
Pro Met Gln Val Gln	Ser Arg Glu Thr Pro	Leu His Gln Leu Tyr
365	370	375
Ser Ala Ala Phe Ser	Lys Gln Lys Leu Gln	Ser Ala Pro Thr Lys
380	385	390
Lys Pro Ala Leu Pro	Phe Gly Asp Leu Pro	Met Gly Tyr Gln His
395	400	405
Leu His Thr Gln Leu	Gln Tyr Glu Cys Ile	Ser Pro Phe Tyr Arg
410	415	420
Arg Leu Gly Ser Ser	Arg Arg Thr Cys Leu	Arg Thr Gly Lys Trp
425	430	435
Ser Gly Arg Ala Pro	Ser Cys Ile Pro Ile	Cys Gly Lys Ile Glu
440	445	450
Asn Ile Thr Ala Pro	Lys Thr Gln Gly Leu	Arg Trp Pro Trp Gln
455	460	465
Ala Ala Ile Tyr Arg	Arg Thr Ser Gly Val	His Asp Gly Ser Leu
470	475	480

His	Lys	Gly	Ala	Trp	Phe	Leu	Val	Cys	Ser	Gly	Ala	Leu	Val	Asn	
				485						490				495	
Glu	Arg	Thr	Val	Val	Val	Ala	Ala	His	Cys	Val	Thr	Asp	Leu	Gly	
				500					505					510	
Lys	Val	Thr	Met	Ile	Lys	Thr	Ala	Asp	Leu	Lys	Val	Val	Leu	Gly	
				515					520					525	
Lys	Phe	Tyr	Arg	Asp	Asp	Asp	Arg	Asp	Glu	Lys	Thr	Ile	Gln	Ser	
				530					535					540	
Leu	Gln	Ile	Ser	Ala	Ile	Ile	Leu	His	Pro	Asn	Tyr	Asp	Pro	Ile	
				545					550					555	
Leu	Leu	Asp	Ala	Asp	Ile	Ala	Ile	Leu	Lys	Leu	Leu	Asp	Lys	Ala	
				560					565					570	
Arg	Ile	Ser	Thr	Arg	Val	Gln	Pro	Ile	Cys	Leu	Ala	Ala	Ser	Arg	
				575					580					585	
Asp	Leu	Ser	Thr	Ser	Phe	Gln	Glu	Ser	His	Ile	Thr	Val	Ala	Gly	
				590					595					600	
Trp	Asn	Val	Leu	Ala	Asp	Val	Arg	Ser	Pro	Gly	Phe	Lys	Asn	Asp	
				605					610					615	
Thr	Leu	Arg	Ser	Gly	Val	Val	Ser	Val	Val	Asp	Ser	Leu	Leu	Cys	
				620					625					630	
Glu	Glu	Gln	His	Glu	Asp	His	Gly	Ile	Pro	Val	Ser	Val	Thr	Asp	
				635					640					645	
Asn	Met	Phe	Cys	Ala	Ser	Trp	Glu	Pro	Thr	Ala	Pro	Ser	Asp	Ile	
				650					655					660	
Cys	Thr	Ala	Glu	Thr	Gly	Gly	Ile	Ala	Ala	Val	Ser	Phe	Pro	Gly	
				665					670					675	
Arg	Ala	Ser	Pro	Glu	Pro	Arg	Trp	His	Leu	Met	Gly	Leu	Val	Ser	
				680					685					690	
Trp	Ser	Tyr	Asp	Lys	Thr	Cys	Ser	His	Arg	Leu	Ser	Thr	Ala	Phe	
				695					700					705	
Thr	Lys	Val	Leu	Pro	Phe	Lys	Asp	Trp	Ile	Glu	Arg	Asn	Met	Lys	
				710					715					720	

<210> 232

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 232

aggttcgtga tggagacaac cgcg 24

<210> 233

<211> 24

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 233
tgtcaaggac gcactgccgt catg 24

<210> 234
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 234
tggccagatc atcaagcgtg tctgtggcaa cgagcggcca gtcctatcc 50

<210> 235
<211> 1964
<212> DNA
<213> Homo sapiens

<400> 235
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agctcaactt gaagctttct tgcctgcagt gaagcagaga gatagatatt 100
attcacgtaa taaaaaacat gggcttcaac ctgactttcc acctttccta 150
caaatccga t tactgttgc tgttgacttt gtgcctgaca gtggttgggt 200
gggccaccag taactacttc gtgggtgcca ttcaagagat tcttaaagca 250
aaggagtcca tggctaattt ccataagacc ctcatcttgg ggaaggga 300
aactctgact aatgaagcat ccacgaagaa ggtagaactt gacaactgtc 350
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tgtaaaatga ttttgtacaa gtaggatatg aattagcagt ttacaagttt 1900
acatattaac taataataaa tatgtctatc aaatacctct gtagtaaaat 1950
gtgaaaaagc aaaa 1964

<210> 236

<211> 344

<212> PRT

<213> Homo sapiens

<220>

<221> Signal peptide

<222> 1-27

<223> Signal peptide

<220>

<221> N-glycosylation sites

<222> 4-7, 220-223, 335-338

<223> N-glycosylation sites

<220>

<221> Xylose isomerase proteins

<222> 191-201

<223> Xylose isomerase proteins

<400> 236

Met Gly Phe Asn Leu Thr Phe His Leu Ser Tyr Lys Phe Arg Leu
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Leu	Leu	Leu	Leu	Thr	Leu	Cys	Leu	Thr	Val	Val	Gly	Trp	Ala	Thr	
				20					25					30	
Ser	Asn	Tyr	Phe	Val	Gly	Ala	Ile	Gln	Glu	Ile	Pro	Lys	Ala	Lys	
				35					40					45	
Glu	Phe	Met	Ala	Asn	Phe	His	Lys	Thr	Leu	Ile	Leu	Gly	Lys	Gly	
				50					55					60	
Lys	Thr	Leu	Thr	Asn	Glu	Ala	Ser	Thr	Lys	Lys	Val	Glu	Leu	Asp	
				65					70					75	
Asn	Cys	Pro	Ser	Val	Ser	Pro	Tyr	Leu	Arg	Gly	Gln	Ser	Lys	Leu	
				80					85					90	
Ile	Phe	Lys	Pro	Asp	Leu	Thr	Leu	Glu	Glu	Val	Gln	Ala	Glu	Asn	
				95					100					105	
Pro	Lys	Val	Ser	Arg	Gly	Arg	Tyr	Arg	Pro	Gln	Glu	Cys	Lys	Ala	
				110					115					120	
Leu	Gln	Arg	Val	Ala	Ile	Leu	Val	Pro	His	Arg	Asn	Arg	Glu	Lys	
				125					130					135	
His	Leu	Met	Tyr	Leu	Leu	Glu	His	Leu	His	Pro	Phe	Leu	Gln	Arg	
				140					145					150	
Gln	Gln	Leu	Asp	Tyr	Gly	Ile	Tyr	Val	Ile	His	Gln	Ala	Glu	Gly	
				155					160					165	
Lys	Lys	Phe	Asn	Arg	Ala	Lys	Leu	Leu	Asn	Val	Gly	Tyr	Leu	Glu	
				170					175					180	
Ala	Leu	Lys	Glu	Glu	Asn	Trp	Asp	Cys	Phe	Ile	Phe	His	Asp	Val	
				185					190					195	
Asp	Leu	Val	Pro	Glu	Asn	Asp	Phe	Asn	Leu	Tyr	Lys	Cys	Glu	Glu	
				200					205					210	
His	Pro	Lys	His	Leu	Val	Val	Gly	Arg	Asn	Ser	Thr	Gly	Tyr	Arg	
				215					220					225	
Leu	Arg	Tyr	Ser	Gly	Tyr	Phe	Gly	Gly	Val	Thr	Ala	Leu	Ser	Arg	
				230					235					240	
Glu	Gln	Phe	Phe	Lys	Val	Asn	Gly	Phe	Ser	Asn	Asn	Tyr	Trp	Gly	
				245					250					255	
Trp	Gly	Gly	Glu	Asp	Asp	Asp	Leu	Arg	Leu	Arg	Val	Glu	Leu	Gln	
				260					265					270	
Arg	Met	Lys	Ile	Ser	Arg	Pro	Leu	Pro	Glu	Val	Gly	Lys	Tyr	Thr	
				275					280					285	
Met	Val	Phe	His	Thr	Arg	Asp	Lys	Gly	Asn	Glu	Val	Asn	Ala	Glu	
				290					295					300	
Arg	Met	Lys	Leu	Leu	His	Gln	Val	Ser	Arg	Val	Trp	Arg	Thr	Asp	
				305					310					315	
Gly	Leu	Ser	Ser	Cys	Ser	Tyr	Lys	Leu	Val	Ser	Val	Glu	His	Asn	
				320					325					330	

Pro Leu Tyr Ile Asn Ile Thr Val Asp Phe Trp Phe Gly Ala
335 340

<210> 237
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 237
ccttacctca gaggccagag caagc 25

<210> 238
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 238
gagcttcac cgtctgtcgt tcacc 25

<210> 239
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 239
caggaatgta aagctttaca gagggctgcc atcctcgttc cccacc 46

<210> 240
<211> 2567
<212> DNA
<213> Homo sapiens

<400> 240
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tctcccgctc cgggccccgc aatggcccag gcagtggtgt cgcgccctcg 150
ccgcattcctc tggcttgect gcctectgcc ctgggccccc gcaggggtgg 200
ccgcaggcct gtatgaactc aatctcacc cccatagccc tgccaccaag 250
ggagcgggtg tgacctctc gccagcctg gtggccaagg acaacggcag 300
cctggccctg cccgctgacg cccacctota ccgcttcac ttgatccaca 350
ccccgctggt gcttactggc aagatggaga aggggtctcag ctccaccatc 400
cgtgtggtcg gccacgtgcc cggggaattc ccggtctctg tctgggtcac 450
tgccgctgac tgctggatgt gccagcctgt ggccaggggc tttgtggtcc 500
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<210> 241

<211> 423

<212> PRT

<213> Homo sapiens

<400> 241

Met	Ala	Gln	Ala	Val	Trp	Ser	Arg	Leu	Gly	Arg	Ile	Leu	Trp	Leu	1	5	10	15
Ala	Cys	Leu	Leu	Pro	Trp	Ala	Pro	Ala	Gly	Val	Ala	Ala	Gly	Leu	20	25	30	
Tyr	Glu	Leu	Asn	Leu	Thr	Thr	Asp	Ser	Pro	Ala	Thr	Thr	Gly	Ala	35	40	45	
Val	Val	Thr	Ile	Ser	Ala	Ser	Leu	Val	Ala	Lys	Asp	Asn	Gly	Ser	50	55	60	
Leu	Ala	Leu	Pro	Ala	Asp	Ala	His	Leu	Tyr	Arg	Phe	His	Trp	Ile	65	70	75	
His	Thr	Pro	Leu	Val	Leu	Thr	Gly	Lys	Met	Glu	Lys	Gly	Leu	Ser	80	85	90	
Ser	Thr	Ile	Arg	Val	Val	Gly	His	Val	Pro	Gly	Glu	Phe	Pro	Val	95	100	105	
Ser	Val	Trp	Val	Thr	Ala	Ala	Asp	Cys	Trp	Met	Cys	Gln	Pro	Val	110	115	120	
Ala	Arg	Gly	Phe	Val	Val	Leu	Pro	Ile	Thr	Glu	Phe	Leu	Val	Gly	125	130	135	
Asp	Leu	Val	Val	Thr	Gln	Asn	Thr	Ser	Leu	Pro	Trp	Pro	Ser	Ser	140	145	150	
Tyr	Leu	Thr	Lys	Thr	Val	Leu	Lys	Val	Ser	Phe	Leu	Leu	His	Asp	155	160	165	
Pro	Ser	Asn	Phe	Leu	Lys	Thr	Ala	Leu	Phe	Leu	Tyr	Ser	Trp	Asp	170	175	180	
Phe	Gly	Asp	Gly	Thr	Gln	Met	Val	Thr	Glu	Asp	Ser	Val	Val	Tyr	185	190	195	

Tyr Asn Tyr Ser Ile Ile Gly Thr Phe Thr Val Lys Leu Lys Val
 200 205 210
 Val Ala Glu Trp Glu Glu Val Glu Pro Asp Ala Thr Arg Ala Val
 215 220 225
 Lys Gln Lys Thr Gly Asp Phe Ser Ala Ser Leu Lys Leu Gln Glu
 230 235 240
 Thr Leu Arg Gly Ile Gln Val Leu Gly Pro Thr Leu Ile Gln Thr
 245 250 255
 Phe Gln Lys Met Thr Val Thr Leu Asn Phe Leu Gly Ser Pro Pro
 260 265 270
 Leu Thr Val Cys Trp Arg Leu Lys Pro Glu Cys Leu Pro Leu Glu
 275 280 285
 Glu Gly Glu Cys His Pro Val Ser Val Ala Ser Thr Ala Tyr Asn
 290 295 300
 Leu Thr His Thr Phe Arg Asp Pro Gly Asp Tyr Cys Phe Ser Ile
 305 310 315
 Arg Ala Glu Asn Ile Ile Ser Lys Thr His Gln Tyr His Lys Ile
 320 325 330
 Gln Val Trp Pro Ser Arg Ile Gln Pro Ala Val Phe Ala Phe Pro
 335 340 345
 Cys Ala Thr Leu Ile Thr Val Met Leu Ala Phe Ile Met Tyr Met
 350 355 360
 Thr Leu Arg Asn Ala Thr Gln Gln Lys Asp Met Val Glu Asn Pro
 365 370 375
 Glu Pro Pro Ser Gly Val Arg Cys Cys Cys Gln Met Cys Cys Gly
 380 385 390
 Pro Phe Leu Leu Glu Thr Pro Ser Glu Tyr Leu Glu Ile Val Arg
 395 400 405
 Glu Asn His Gly Leu Leu Pro Pro Leu Tyr Lys Ser Val Lys Thr
 410 415 420
 Tyr Thr Val

<210> 242
 <211> 26
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Synthetic oligonucleotide probe
 <400> 242
 catttcctta ccttgagacc agctcc 26
 <210> 243
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 243
gaaaggccca cagcacatct ggcag 25

<210> 244
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 244
ccacgaccg agcaacttcc tcaagaccga cttgtttctc tacagc 46

<210> 245
<211> 485
<212> DNA
<213> Homo sapiens

<400> 245
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ctgaccagtg gctctgtttt cccacaacag acgggacaac ttgcagagct 150
gcaaccccag gacagagctg gagccagggc cagctggatg cccatgttcc 200
agaggcgaag gaggcgagac acccaactcc ccatctgcgt tttctgctgc 250
ggctgctgtc atcgatcaaa gtgtgggatg tgctgcaaga cgtagaacct 300
acctgccctg cccccgtccc ctcccttctc tatttattcc tgctgcccc 350
gaacataggt cttggaataa aatggctggt tcttttgttt tccaaaaaaa 400
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 450
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa 485

<210> 246
<211> 84
<212> PRT
<213> Homo sapiens

<400> 246
Met Ala Leu Ser Ser Gln Ile Trp Ala Ala Cys Leu Leu Leu Leu
1 5 10 15
Leu Leu Leu Ala Ser Leu Thr Ser Gly Ser Val Phe Pro Gln Gln
20 25 30
Thr Gly Gln Leu Ala Glu Leu Gln Pro Gln Asp Arg Ala Gly Ala
35 40 45
Arg Ala Ser Trp Met Pro Met Phe Gln Arg Arg Arg Arg Asp
50 55 60
Thr His Phe Pro Ile Cys Ile Phe Cys Cys Gly Cys Cys His Arg
65 70 75

Ser Lys Cys Gly Met Cys Cys Lys Thr

80

<210> 247

<211> 2359

<212> DNA

<213> Homo sapiens

<400> 247

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tgctggcctg gcctggatct tccaccatgt tctgttgct gccttttgat 100
agcctgattg tcaaccttct ggcatctcc ctgactgtcc tcttcacct 150
ccttctcggt ttcacatag tgccagccat ttttgagtc tcttttgga 200
tccgcaaaact ctacatgaaa agctgttaa aaatctttgc gtgggctacc 250
ttgagaatgg agcgaggagc caaggagaag aaccaccagc ttacaagcc 300
ctacaccaac ggaatcattg caaaggatcc cacttacta gaagaagaga 350
tcaaagagat tcgtcgaagt ggtagtagta aggtcttgga caacactcca 400
gagttcgagc tctctgacat tttctacttt tgccggaaag gaattggagc 450
cattatggat gatgaggtga caaagagatt ctcagcagaa gaactggagt 500
cctggaacct gctgagcaga accaattata acttccagta catcagcctt 550
cggctcacgg tctgtgtggg gttaggagtg ctgattcggg actgctttct 600
gctgccgctc aggatagcac tggctttcac agggattagc cttctggtgg 650
tgggcacaac tgtggtggga tacttgccaa atgggagggt taaggaattc 700
atgagtaaac atgttcactt aatgtgttac cggatctcgc tgcgagcgct 750
gacagccatc atcacctacc atgacaggga aaacagacca agaaatggtg 800
gcatctgtgt ggccaatcat acctcaccga tcgatgtgat catcttgcc 850
agcgatggct attatgccat ggtgggtcaa gtgcacgggg gactcatggg 900
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gctcggaagt gaaggatcgc cacttggtgg ctaagagact gactgaacat 1000
gtgcaagata aaagcaagct gcctatctc atctcccag aaggaaactg 1050
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gagccacagt ttacctgtt gctatcaagt atgacctca atttgcgat 1150
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gccattgcca ggcaggggagg acttgtggac ctgctgtggg atgggggcct 1350

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 cggcctcaac atcgccccc gccttgagc tctgcagaca tgataggaag 1950
 gaaactgtca tctgcagggg ctttcagcaa aatgaagggt tagattttta 2000
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 aactcccat gtgatgcgcg ctttgtttaa tgtgtgtctc gggttcccca 2150
 tctgtaatat gagtcggggg gaatggtggt gattcctacc tcacagggct 2200
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 tgtttcaagt acaggccac aaaacggggc acggcaggcc tgagctcaga 2300
 gctgctgcac tgggctttgg atttgttctt gtgagtaaat aaaactggct 2350
 ggtgaatga 2359

<210> 248
 <211> 456
 <212> PRT
 <213> Homo sapiens

<400> 248
 Met Phe Leu Leu Pro Phe Asp Ser Leu Ile Val Asn Leu Leu
 1 5 10 15
 Gly Ile Ser Leu Thr Val Leu Phe Thr Leu Leu Val Phe Ile
 20 25 30
 Ile Val Pro Ala Ile Phe Gly Val Ser Phe Gly Ile Arg Lys Leu
 35 40 45
 Tyr Met Lys Ser Leu Leu Lys Ile Phe Ala Trp Ala Thr Leu Arg
 50 55 60
 Met Glu Arg Gly Ala Lys Glu Lys Asn His Gln Leu Tyr Lys Pro
 65 70 75

Tyr	Thr	Asn	Gly	Ile	Ile	Ala	Lys	Asp	Pro	Thr	Ser	Leu	Glu	Glu	
				80						85				90	
Glu	Ile	Lys	Glu	Ile	Arg	Arg	Ser	Gly	Ser	Ser	Lys	Ala	Leu	Asp	
				95					100					105	
Asn	Thr	Pro	Glu	Phe	Glu	Leu	Ser	Asp	Ile	Phe	Tyr	Phe	Cys	Arg	
				110					115					120	
Lys	Gly	Met	Glu	Thr	Ile	Met	Asp	Asp	Glu	Val	Thr	Lys	Arg	Phe	
				125					130					135	
Ser	Ala	Glu	Glu	Leu	Glu	Ser	Trp	Asn	Leu	Leu	Ser	Arg	Thr	Asn	
				140					145					150	
Tyr	Asn	Phe	Gln	Tyr	Ile	Ser	Leu	Arg	Leu	Thr	Val	Leu	Trp	Gly	
				155					160					165	
Leu	Gly	Val	Leu	Ile	Arg	Tyr	Cys	Phe	Leu	Leu	Pro	Leu	Arg	Ile	
				170					175					180	
Ala	Leu	Ala	Phe	Thr	Gly	Ile	Ser	Leu	Leu	Val	Val	Gly	Thr	Thr	
				185					190					195	
Val	Val	Gly	Tyr	Leu	Pro	Asn	Gly	Arg	Phe	Lys	Glu	Phe	Met	Ser	
				200					205					210	
Lys	His	Val	His	Leu	Met	Cys	Tyr	Arg	Ile	Cys	Val	Arg	Ala	Leu	
				215					220					225	
Thr	Ala	Ile	Ile	Thr	Tyr	His	Asp	Arg	Glu	Asn	Arg	Pro	Arg	Asn	
				230					235					240	
Gly	Gly	Ile	Cys	Val	Ala	Asn	His	Thr	Ser	Pro	Ile	Asp	Val	Ile	
				245					250					255	
Ile	Leu	Ala	Ser	Asp	Gly	Tyr	Tyr	Ala	Met	Val	Gly	Gln	Val	His	
				260					265					270	
Gly	Gly	Leu	Met	Gly	Val	Ile	Gln	Arg	Ala	Met	Val	Lys	Ala	Cys	
				275					280					285	
Pro	His	Val	Trp	Phe	Glu	Arg	Ser	Glu	Val	Lys	Asp	Arg	His	Leu	
				290					295					300	
Val	Ala	Lys	Arg	Leu	Thr	Glu	His	Val	Gln	Asp	Lys	Ser	Lys	Leu	
				305					310					315	
Pro	Ile	Leu	Ile	Phe	Pro	Glu	Gly	Thr	Cys	Ile	Asn	Asn	Thr	Ser	
				320					325					330	
Val	Met	Met	Phe	Lys	Lys	Gly	Ser	Phe	Glu	Ile	Gly	Ala	Thr	Val	
				335					340					345	
Tyr	Pro	Val	Ala	Ile	Lys	Tyr	Asp	Pro	Gln	Phe	Gly	Asp	Ala	Phe	
				350					355					360	
Trp	Asn	Ser	Ser	Lys	Tyr	Gly	Met	Val	Thr	Tyr	Leu	Leu	Arg	Met	
				365					370					375	
Met	Thr	Ser	Trp	Ala	Ile	Val	Cys	Ser	Val	Trp	Tyr	Leu	Pro	Pro	
				380					385					390	

Met Thr Arg Glu Ala Asp Glu Asp Ala Val Gln Phe Ala Asn Arg
 395 400 405
 Val Lys Ser Ala Ile Ala Arg Gln Gly Gly Leu Val Asp Leu Leu
 410 415 420
 Trp Asp Gly Gly Leu Lys Arg Glu Lys Val Lys Asp Thr Phe Lys
 425 430 435
 Glu Glu Gln Gln Lys Leu Tyr Ser Lys Met Ile Val Gly Asn His
 440 445 450
 Lys Asp Arg Ser Arg Ser
 455

<210> 249
 <211> 1103
 <212> DNA
 <213> Homo sapiens

<400> 249
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 ccctggccct cagctctcct ccagggatgg cgctggcggc tttgatgac 100
 gccctcgga gccctggcct ccacacctgg cagggccagg ctgttccac 150
 catctgccc ctgggcctgg ctccagacac ctttgacgat acctatgtg 200
 gttgtgcaga ggagatggag gagaaggcag cccccctgct aaaggaggaa 250
 atggccacc atgccttctg gcgggaatcc tgggaggcag ccaggagac 300
 ctgggaggac aagcgtcgag ggcttacctt gccccctggc ttcaaagccc 350
 agaatggaat agccattatg gtctacacca actcatcgaa cacottgtac 400
 tgggagtga atcaggccgt gcggacgggc ggaggctccc gggagctcta 450
 catgaggcac ttcccttca aggccctgca tttctacctg atccggggccc 500
 tgcagctgct gcgaggcagt gggggctgca gcaggggacc tggggagggtg 550
 gtgttccgag gtgtgggcag ccttcgcttt gaacccaaga ggctggggga 600
 ctctgtccgc ttgggccagt ttgcctccag ctccctggat aaggcagtg 650
 cccacagatt tggggagaag aggcggggct gtgtgtctgc gccagggggtg 700
 cagctagggt cacaatctga gggggcctcc tctctgcccc cctggaagac 750
 tctgtctctg gccctggag agttccagct ctacgggggt gggccctgaa 800
 agtccaacat ctgccactta ggagccctgg gaacgggtga ccttcatatg 850
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 ccagccctag cagccttctc cccaaccagg atgttgccct ggggaggcca 950
 cagcagggct gagggaaact tgctatgtga tggggacttc ctgggacaag 1000
 caaggaaagt actgaggcag ccacttgatt gaacggtgtt gcaatgtgga 1050

gacatggagt ttattgagg tagctacgtg attaaatggt attgcagtgt 1100

gga 1103

<210> 250

<211> 240

<212> PRT

<213> Homo sapiens

<400> 250

Met	Ala	Leu	Ala	Ala	Leu	Met	Ile	Ala	Leu	Gly	Ser	Leu	Gly	Leu
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His	Thr	Trp	Gln	Ala	Gln	Ala	Val	Pro	Thr	Ile	Leu	Pro	Leu	Gly
			20						25				30	

Leu	Ala	Pro	Asp	Thr	Phe	Asp	Asp	Thr	Tyr	Val	Gly	Cys	Ala	Glu
			35						40				45	

Glu	Met	Glu	Glu	Lys	Ala	Ala	Pro	Leu	Leu	Lys	Glu	Glu	Met	Ala
			50						55				60	

His	His	Ala	Leu	Leu	Arg	Glu	Ser	Trp	Glu	Ala	Ala	Gln	Glu	Thr
			65						70				75	

Trp	Glu	Asp	Lys	Arg	Arg	Gly	Leu	Thr	Leu	Pro	Pro	Gly	Phe	Lys
			80						85				90	

Ala	Gln	Asn	Gly	Ile	Ala	Ile	Met	Val	Tyr	Thr	Asn	Ser	Ser	Asn
			95						100				105	

Thr	Leu	Tyr	Trp	Glu	Leu	Asn	Gln	Ala	Val	Arg	Thr	Gly	Gly	Glu
			110						115				120	

Ser	Arg	Glu	Leu	Tyr	Met	Arg	His	Phe	Pro	Phe	Lys	Ala	Leu	His
			125						130				135	

Phe	Tyr	Leu	Ile	Arg	Ala	Leu	Gln	Leu	Leu	Arg	Gly	Ser	Gly	Glu
			140						145				150	

Cys	Ser	Arg	Gly	Pro	Gly	Glu	Val	Val	Phe	Arg	Gly	Val	Gly	Ser
			155						160				165	

Leu	Arg	Phe	Glu	Pro	Lys	Arg	Leu	Gly	Asp	Ser	Val	Arg	Leu	Gly
			170						175				180	

Gln	Phe	Ala	Ser	Ser	Ser	Leu	Asp	Lys	Ala	Val	Ala	His	Arg	Phe
			185						190				195	

Gly	Glu	Lys	Arg	Arg	Gly	Cys	Val	Ser	Ala	Pro	Gly	Val	Gln	Leu
			200						205				210	

Gly	Ser	Gln	Ser	Glu	Gly	Ala	Ser	Ser	Leu	Pro	Pro	Trp	Lys	Thr
			215						220				225	

Leu	Leu	Leu	Ala	Pro	Gly	Glu	Phe	Gln	Leu	Ser	Gly	Val	Gly	Pro
			230						235				240	

<210> 251

<211> 50

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 251
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<210> 252
<211> 1076
<212> DNA
<213> Homo sapiens

<400> 252
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caacatgcct caccctcatc tataatccttt ggcagctcac agggtcagca 100
gcctctggac ccgtgaaaga gctggtcggt tccgttgggtg gggccgtgac 150
tttccccctg aagtccaaag taaagcaagt tgactctatt gtctggacct 200
tcaacacaa cctcttctg accatacagc cagaaggggg cactatcata 250
gtgacccaaa atcgtaatat ggagagagta gacttcccag atggaggcta 300
ctcctgaag ctacgcaaac tgaagaagaa tgactcaggg atctactatg 350
tggggatata cagctcatca ctccagcagc cctccacca ggagtacgtg 400
ctgcattgtc acgagcacct gtcaaacct aaagtaccca tgggtctgca 450
gagcaataag aatggcacct gtgtgaccaa tctgacatgc tgcattggaac 500
atggggaaga ggatgtgatt tatacctgga aggccctggg gcaagcagcc 550
aatgagtccc ataatgggtc catcctcccc atctcctgga gatggggaga 600
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cagtctcttt gtactggggc tatttctttg gtttctgaag agagagagac 800
aagaagagta cattgaagag aagaagagag tggacatttg tcgggaaact 850
cctaaccat atgccccattc tggagagaac acagagtacg acacaatccc 900
tcacactaat agaacaatcc taaagggaaga tccagcaaat acggtttact 950
ccactgtgga aataccgaaa aagatggaaa atccccactc actgctcagc 1000
atgccagaga caccaaggct attgcctat gagaatgta tctagacagc 1050
agtgcactcc cctaagtctc tgctca 1076

<210> 253
<211> 335
<212> PRT
<213> Homo sapiens

<400> 253
Met Ala Gly Ser Pro Thr Cys Leu Thr Leu Ile Tyr Ile Leu Trp

1	5	10	15
Gln Leu Thr Gly	Ser Ala Ala Ser Gly	Pro Val Lys Glu Leu Val	
	20	25	30
Gly Ser Val Gly	Gly Ala Val Thr Phe	Pro Leu Lys Ser Lys Val	
	35	40	45
Lys Gln Val Asp	Ser Ile Val Trp Thr	Phe Asn Thr Thr Pro Leu	
	50	55	60
Val Thr Ile Gln	Pro Glu Gly Gly Thr	Ile Ile Val Thr Gln Asn	
	65	70	75
Arg Asn Arg Glu	Arg Val Asp Phe Pro	Asp Gly Gly Tyr Ser Leu	
	80	85	90
Lys Leu Ser Lys	Leu Lys Lys Asn Asp	Ser Gly Ile Tyr Tyr Val	
	95	100	105
Gly Ile Tyr Ser	Ser Ser Leu Gln Gln	Pro Ser Thr Gln Glu Tyr	
	110	115	120
Val Leu His Val	Tyr Glu His Leu Ser	Lys Pro Lys Val Thr Met	
	125	130	135
Gly Leu Gln Ser	Asn Lys Asn Gly Thr	Cys Val Thr Asn Leu Thr	
	140	145	150
Cys Cys Met Glu	His Gly Glu Glu Asp	Val Ile Tyr Thr Trp Lys	
	155	160	165
Ala Leu Gly Gln	Ala Ala Asn Glu Ser	His Asn Gly Ser Ile Leu	
	170	175	180
Pro Ile Ser Trp	Arg Trp Gly Glu Ser	Asp Met Thr Phe Ile Cys	
	185	190	195
Val Ala Arg Asn	Pro Val Ser Arg Asn	Phe Ser Ser Pro Ile Leu	
	200	205	210
Ala Arg Lys Leu	Cys Glu Gly Ala Ala	Asp Asp Pro Asp Ser Ser	
	215	220	225
Met Val Leu Leu	Cys Leu Leu Leu Val	Pro Leu Leu Leu Ser Leu	
	230	235	240
Phe Val Leu Gly	Leu Phe Leu Trp Phe	Leu Lys Arg Glu Arg Gln	
	245	250	255
Glu Glu Tyr Ile	Glu Glu Lys Lys Arg	Val Asp Ile Cys Arg Glu	
	260	265	270
Thr Pro Asn Ile	Cys Pro His Ser Gly	Glu Asn Thr Glu Tyr Asp	
	275	280	285
Thr Ile Pro His	Thr Asn Arg Thr Ile	Leu Lys Glu Asp Pro Ala	
	290	295	300
Asn Thr Val Tyr	Ser Thr Val Glu Ile	Pro Lys Lys Met Glu Asn	
	305	310	315
Pro His Ser Leu	Leu Thr Met Pro Asp	Thr Pro Arg Leu Phe Ala	

Tyr Glu Asn Val Ile
335

<210> 254
<211> 1053
<212> DNA
<213> Homo sapiens

<400> 254
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actatcatag tgacccaaaa togtaatagg gagagagtag acttcccaga 250
tggaggctac tccctgaagc tcagcaaaact gaagaagaat gactcaggga 300
tctactatgt ggggatatac agctcatcac tccagcagcc ctccaccag 350
gagtacgtgc tgcattgtct cgagcacctg tcaaagccta aagtcccat 400
gggtctgcag agcaataaga atggcacctg tgtgaccaat ctgacatgct 450
gcatggaaca tggggaagag gatgtgattt atacctggaa ggccctgggg 500
caagcagcca atgagtccca taatgggtcc atctcccca tctctggag 550
atggggagaa agtgatatga ccttcatctg cgttgccagg aacctgtca 600
gcagaaactt ctcaagcccc atccttgcca ggaagctctg tgaagggtgt 650
gctgatgacc cagattcctc catggtcctc ctgtgtctcc tgttggtgcc 700
cctcctgctc agtctctttg tactggggct atttctttgg tttctgaaga 750
gagagagaca agaagagtac attgaagaga agaagagagt ggacatttgt 800
cgggaaactc ctaacatag ccccatctt ggagagaaca cagagtacga 850
caaatccct cactactaata gaacaatcct aaaggaagat ccagcaaata 900
cggtttactc cactgtggaa ataccgaaaa agatggaaaa tcccactca 950
ctgctcacga tgccagacac accaaggcta ttgctcatg agaattgtat 1000
ctagacagca gtgcactccc ctaagtctct gctcaaaaaa aaaaaaaaaa 1050
aaa 1053

<210> 255
<211> 860
<212> DNA
<213> Homo sapiens

<400> 255
gaaagacgtg gtcctgacag acagacaatc ctattcccta ccaaaatgaa 50

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 aagaagctag ttctacggga aggaacttta atgtagaaaa gattaatggg 150
 gaatggcata ctattatcct ggcctctgac aaaagagaaa agatagaaga 200
 acatggcaac tttagacttt ttctggagca aatccatgtc ttggagaatt 250
 ccttagttct taaagtccat actgtaagag atgaagagtg ctccgaatta 300
 tctatggttg ctgacaaaac agaaaaggct ggtgaatatt ctgtgacgta 350
 tgatggattc aatacattta ctatacctaa gacagactat gataactttc 400
 ttatggctca cctcattaac gaaaaggatg gggaaacctt ccagctgatg 450
 gggctctatg gccgagaacc agatttgagt tcagacatca aggaaaggtt 500
 tgcacaacta tgtgaggagc atggaatcct tagagaaaat atcattgacc 550
 tatccaatgc caatcgctgc ctccaggccc gagaatgaag aatggcctga 600
 gcctccagtg ttgagtggac acttctcacc aggactccac catcatccct 650
 tcctatccat acagcatccc cagtataaat tctgtgatct gcattccatc 700
 ctgtctcact gagaagtcca attccagtct atcaacatgt tacctaggat 750
 acctcatcaa gaatcaaaga cttctttaa tttctctttg atacaccctt 800
 gacaattttt catgaaatta ttcctcttcc tgttcaataa atgattacc 850
 ttgcacttaa 860

<210> 256

<211> 180

<212> PRT

<213> Homo sapiens

<400> 256

Met	Lys	Met	Leu	Leu	Leu	Leu	Cys	Leu	Gly	Leu	Thr	Leu	Val	Cys
1			5						10					15
Val	His	Ala	Glu	Glu	Ala	Ser	Ser	Thr	Gly	Arg	Asn	Phe	Asn	Val
			20						25					30
Glu	Lys	Ile	Asn	Gly	Glu	Trp	His	Thr	Ile	Ile	Leu	Ala	Ser	Asp
			35						40					45
Lys	Arg	Glu	Lys	Ile	Glu	Glu	His	Gly	Asn	Phe	Arg	Leu	Phe	Leu
			50						55					60
Glu	Gln	Ile	His	Val	Leu	Glu	Asn	Ser	Leu	Val	Leu	Lys	Val	His
			65						70					75
Thr	Val	Arg	Asp	Glu	Glu	Cys	Ser	Glu	Leu	Ser	Met	Val	Ala	Asp
			80						85					90
Lys	Thr	Glu	Lys	Ala	Gly	Glu	Tyr	Ser	Val	Thr	Tyr	Asp	Gly	Phe
			95						100					105
Asn	Thr	Phe	Thr	Ile	Pro	Lys	Thr	Asp	Tyr	Asp	Asn	Phe	Leu	Met
			110						115					120

Ala	His	Leu	Ile	Asn	Glu	Lys	Asp	Gly	Glu	Thr	Phe	Gln	Leu	Met	
				125					130					135	
Gly	Leu	Tyr	Gly	Arg	Glu	Pro	Asp	Leu	Ser	Ser	Asp	Ile	Lys	Glu	
				140					145					150	
Arg	Phe	Ala	Gln	Leu	Cys	Glu	Glu	His	Gly	Ile	Leu	Arg	Glu	Asn	
				155					160					165	
Ile	Ile	Asp	Leu	Ser	Asn	Ala	Asn	Arg	Cys	Leu	Gln	Ala	Arg	Glu	
				170					175					180	

<210> 257

<211> 766

<212> DNA

<213> Homo sapiens

<400> 257

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ttctcaatgc gatacctcta attgtcagct tagttgagga agaccaaatt 150
tctcaaaacc ccatctcttg ctttgagtgg tggttoccag gaattatagg 200
agcaggctctg atggccattc cagcaacaac aatgtccttg acagcaagaa 250
aaagagcgtg ctgcaacaac agaactggaa tgtttcttct atcatttttc 300
agtgtgatca cagtcattgg tgctctgtat tgcattgctga tatccatcca 350
ggctctctta aaaggtcctc tcatgtgtaa ttctccaagc aacagtaatg 400
ccaattgtga attttcattg aaaaacatca gtgacattca tccagaatcc 450
ttcaacttgc agtggttttt caatgactct tgtgcacctc ctactggttt 500
caataaaacc accagtaacg acaccatggc gagtggctgg agagcatcta 550
gtttccactt cgattctgaa gaaaacaaac ataggcttat ccacttctca 600
gtatttttag gtctattgct tgttggaatt ctggaggtcc tggttgggct 650
cagtcagata gtcacgggtt tccttggctg tctgttgga gtctctaaag 700
gaagaagtca aattgtgtag tttaatggga ataaatgta agtatcagta 750
gtttgaaaaa aaaaaa 766

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<210> 258

<211> 229

<212> PRT

<213> Homo sapiens

<400> 258

Met	Thr	Cys	Cys	Gly	Trp	Thr	Ser	Cys	Asn	Gly	Phe	Ser	Leu	
1				5				10					15	
Leu	Val	Leu	Leu	Leu	Leu	Gly	Val	Val	Leu	Asn	Ala	Ile	Pro	Leu
				20				25					30	
Ile	Val	Ser	Leu	Val	Glu	Glu	Asp	Gln	Phe	Ser	Gln	Asn	Pro	Ile

	35		40		45
Ser Cys Phe Glu Trp Trp Phe Pro Gly Ile Ile Gly Ala Gly Leu	50		55		60
Met Ala Ile Pro Ala Thr Thr Met Ser Leu Thr Ala Arg Lys Arg	65		70		75
Ala Cys Cys Asn Asn Arg Thr Gly Met Phe Leu Ser Ser Phe Phe	80		85		90
Ser Val Ile Thr Val Ile Gly Ala Leu Tyr Cys Met Leu Ile Ser	95		100		105
Ile Gln Ala Leu Leu Lys Gly Pro Leu Met Cys Asn Ser Pro Ser	110		115		120
Asn Ser Asn Ala Asn Cys Glu Phe Ser Leu Lys Asn Ile Ser Asp	125		130		135
Ile His Pro Glu Ser Phe Asn Leu Gln Trp Phe Phe Asn Asp Ser	140		145		150
Cys Ala Pro Pro Thr Gly Phe Asn Lys Pro Thr Ser Asn Asp Thr	155		160		165
Met Ala Ser Gly Trp Arg Ala Ser Ser Phe His Phe Asp Ser Glu	170		175		180
Glu Asn Lys His Arg Leu Ile His Phe Ser Val Phe Leu Gly Leu	185		190		195
Leu Leu Val Gly Ile Leu Glu Val Leu Phe Gly Leu Ser Gln Ile	200		205		210
Val Ile Gly Phe Leu Gly Cys Leu Cys Gly Val Ser Lys Arg Arg	215		220		225

Ser Gln Ile Val

<210> 259
 <211> 434
 <212> DNA
 <213> Homo sapiens

<400> 259
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 caccatgagg ctgtcagtggt gtctcctgat ggtctcgctg gccctttgct 100
 gctaccaggc coactgtctt gtctgcccag ctggtgcttc tgagatcaca 150
 gtcttcttat tcttaagtga cgctgcgcta aacctocaag ttgccaaact 200
 taatccacct ccagaagctc ttgcagccaa gttggaagtg aagcactgca 250
 ccgatcagat atcttttaag aaacgactct cattgaaaaa gtccctgggtg 300
 aaatagttaa aaaatgtggt gtgtgacatg taaaaatgct caacctgggt 350
 tccaaagtct ttcaacgaca cctgatctt cactaaaaat tgtaaagggt 400

tcaacacggtt gctttaataa atcacttgcc ctgc 434

<210> 260

<211> 83

<212> PRT

<213> Homo sapiens

<400> 260

Met Arg Leu Ser Val Cys Leu Leu Met Val Ser Leu Ala Leu Cys
1 5 10 15

Cys Tyr Gln Ala His Ala Leu Val Cys Pro Ala Val Ala Ser Glu
20 25 30

Ile Thr Val Phe Leu Phe Leu Ser Asp Ala Ala Val Asn Leu Gln
35 40 45

Val Ala Lys Leu Asn Pro Pro Pro Glu Ala Leu Ala Ala Lys Leu
50 55 60

Glu Val Lys His Cys Thr Asp Gln Ile Ser Phe Lys Lys Arg Leu
65 70 75

Ser Leu Lys Lys Ser Trp Trp Lys
80

<210> 261

<211> 636

<212> DNA

<213> Homo sapiens

<400> 261

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ctgaccaatt gagctgtgag cctggagcag atccgtgggc tgcagacccc 150

cgccccagtg cctctcccc tgcagccctg cccctcgaac tgtgacatgg 200

agagagtgtg cctggccctt ctctactgtg caggcctgac tgccttgtaa 250

gccaatgacc catttgccaa taaagacgat cccttctact atgactggaa 300

aaacctgcag ctgagcggac tgatctgcgg agggctcctg gccattgtgt 350

ggatcgcggc agttctgagt ggcaaatgca aatacaagag cagccagaag 400

cagcacagtc ctgtacctga gaaggccatc ccactcatca ctccaggctc 450

tgccactact tgctgagcac aggaactggcc tccagggatg gccgaagcc 500

taaacactggc cccagcaccc tctctccctg ggaggcctta tctcaagga 550

taagactctc tocaagggca ggctgttagg cccctttctg atcaggaggc 600

ttctttatga attaaactcg cccaccacc cctca 636

<210> 262

<211> 89

<212> PRT

<213> Homo sapiens

<400> 262

Met Glu Arg Val Thr Leu Ala Leu Leu Leu Leu Ala Gly Leu Thr
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Ala Leu Glu Ala Asn Asp Pro Phe Ala Asn Lys Asp Asp Pro Phe
20 25 30
Tyr Tyr Asp Trp Lys Asn Leu Gln Leu Ser Gly Leu Ile Cys Gly
35 40 45
Gly Leu Leu Ala Ile Ala Gly Ile Ala Ala Val Leu Ser Gly Lys
50 55 60
Cys Lys Tyr Lys Ser Ser Gln Lys Gln His Ser Pro Val Pro Glu
65 70 75
Lys Ala Ile Pro Leu Ile Thr Pro Gly Ser Ala Thr Thr Cys
80 85

<210> 263

<211> 1676

<212> DNA

<213> Homo sapiens

<400> 263

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actcctgtcg ctggttggg gctcctggct actcgccgcg atcctggctt 150
ggacctatgc cttctataac aactgccgcc ggtccagtg tttcccacag 200
ccccaaaac ggaactgggt ttggggtcac ctgggcctga tcaatcctac 250
agaggagggc ttgaaggact cgaccagat gtcggccacc tattccagg 300
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gccttcatt tcaacatcct gaagtcctat ataacgatct tcaacaagag 550
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gtcgtctgga catgtttgag cacatcagcc tcatgacctt ggacagtota 650
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ctgagcaagg atgaagatgg gaaggcattg tcatgatgagg atataagagc 1000
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 gtcatgaata aaacggtgct gtcaaa 1676

<210> 264

<211> 524

<212> PRT

<213> Homo sapiens

<400> 264

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Met	Ser	Pro	Trp	Leu	Leu	Leu	Leu	Val	Val	Gly	Ser	Trp	Leu	
				20				25					30	
Leu	Ala	Arg	Ile	Leu	Ala	Trp	Thr	Tyr	Ala	Phe	Tyr	Asn	Asn	Cys
				35				40						45
Arg	Arg	Leu	Gln	Cys	Phe	Pro	Gln	Pro	Pro	Lys	Arg	Asn	Trp	Phe
				50				55						60
Trp	Gly	His	Leu	Gly	Leu	Ile	Thr	Pro	Thr	Glu	Glu	Gly	Leu	Lys
				65				70						75
Asp	Ser	Thr	Gln	Met	Ser	Ala	Thr	Tyr	Ser	Gln	Gly	Phe	Thr	Val
				80				85						90
Trp	Leu	Gly	Pro	Ile	Ile	Pro	Phe	Ile	Val	Leu	Cys	His	Pro	Asp
				95				100						105
Thr	Ile	Arg	Ser	Ile	Thr	Asn	Ala	Ser	Ala	Ala	Ile	Ala	Pro	Lys
				110				115						120
Asp	Asn	Leu	Phe	Ile	Arg	Phe	Leu	Lys	Pro	Trp	Leu	Gly	Glu	Gly
				125				130						135

Ile	Leu	Leu	Ser	Gly	Gly	Asp	Lys	Trp	Ser	Arg	His	Arg	Arg	Met	
				140					145					150	
Leu	Thr	Pro	Ala	Phe	His	Phe	Asn	Ile	Leu	Lys	Ser	Tyr	Ile	Thr	
				155					160					165	
Ile	Phe	Asn	Lys	Ser	Ala	Asn	Ile	Met	Leu	Asp	Lys	Trp	Gln	His	
				170					175					180	
Leu	Ala	Ser	Glu	Gly	Ser	Ser	Arg	Leu	Asp	Met	Phe	Glu	His	Ile	
				185					190					195	
Ser	Leu	Met	Thr	Leu	Asp	Ser	Leu	Gln	Lys	Cys	Ile	Phe	Ser	Phe	
				200					205					210	
Asp	Ser	His	Cys	Gln	Glu	Arg	Pro	Ser	Glu	Tyr	Ile	Ala	Thr	Ile	
				215					220					225	
Leu	Glu	Leu	Ser	Ala	Leu	Val	Glu	Lys	Arg	Ser	Gln	His	Ile	Leu	
				230					235					240	
Gln	His	Met	Asp	Phe	Leu	Tyr	Tyr	Leu	Ser	His	Asp	Gly	Arg	Arg	
				245					250					255	
Phe	His	Arg	Ala	Cys	Arg	Leu	Val	His	Asp	Phe	Thr	Asp	Ala	Val	
				260					265					270	
Ile	Arg	Glu	Arg	Arg	Arg	Thr	Leu	Pro	Thr	Gln	Gly	Ile	Asp	Asp	
				275					280					285	
Phe	Phe	Lys	Asp	Lys	Ala	Lys	Ser	Lys	Thr	Leu	Asp	Phe	Ile	Asp	
				290					295					300	
Val	Leu	Leu	Leu	Ser	Lys	Asp	Glu	Asp	Gly	Lys	Ala	Leu	Ser	Asp	
				305					310					315	
Glu	Asp	Ile	Arg	Ala	Glu	Ala	Asp	Thr	Phe	Met	Phe	Gly	Gly	His	
				320					325					330	
Asp	Thr	Thr	Ala	Ser	Gly	Leu	Ser	Trp	Val	Leu	Tyr	Asn	Leu	Ala	
				335					340					345	
Arg	His	Pro	Glu	Tyr	Gln	Glu	Arg	Cys	Arg	Gln	Glu	Val	Gln	Glu	
				350					355					360	
Leu	Leu	Lys	Asp	Arg	Asp	Pro	Lys	Glu	Ile	Glu	Trp	Asp	Asp	Leu	
				365					370					375	
Ala	Gln	Leu	Pro	Phe	Leu	Thr	Met	Cys	Val	Lys	Glu	Ser	Leu	Arg	
				380					385					390	
Leu	His	Pro	Pro	Ala	Pro	Phe	Ile	Ser	Arg	Cys	Cys	Thr	Gln	Asp	
				395					400					405	
Ile	Val	Leu	Pro	Asp	Gly	Arg	Val	Ile	Pro	Lys	Gly	Ile	Thr	Cys	
				410					415					420	
Leu	Ile	Asp	Ile	Ile	Gly	Val	His	His	Asn	Pro	Thr	Val	Trp	Pro	
				425					430					435	
Asp	Pro	Glu	Val	Tyr	Asp	Pro	Phe	Arg	Phe	Asp	Pro	Glu	Asn	Ser	
				440					445					450	

Lys Gly Arg Ser Pro Leu Ala Phe Ile Pro Phe Ser Ala Gly Pro
 455 460 465

Arg Asn Cys Ile Gly Gln Ala Phe Ala Met Ala Glu Met Lys Val
 470 475 480

Val Leu Ala Leu Met Leu Leu His Phe Arg Phe Leu Pro Asp His
 485 490 495

Thr Glu Pro Arg Arg Lys Leu Glu Leu Ile Met Arg Ala Glu Gly
 500 505 510

Gly Leu Trp Leu Arg Val Glu Pro Leu Asn Val Gly Leu Gln
 515 520

<210> 265
 <211> 584
 <212> DNA
 <213> Homo sapiens

<400> 265
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 atgaagacgc gcgcttaact ccggaggagc tagaaagagc ttcccttcta 200
 cagatattgc cagagatgct ggggtgcagaa agaggggata ttctcaggaa 250
 agcagactca agtaccaaca tttttaacc cagaggaaat ttgagaaagt 300
 ttcaggattt ctctggacaa gatcctaaca ttttactgag tcattctttg 350
 gccagaatct ggaaaccata caagaaacgt gagactcctg attgcttctg 400
 gaaatactgt gtctgaagtg aaataagcat ctgttagtca gctcagaaac 450
 acccatctta gaatatgaaa aataacacaa tgcttgattt gaaaacagtg 500
 tggagaaaaa ctaggcaaac tacacctgt tcattgttac ctggaaaata 550
 aatcctctat gttttgcaca aaaaaaaaaa aaaa 584

<210> 266
 <211> 124
 <212> PRT
 <213> Homo sapiens

<400> 266
 Met Tyr Lys Leu Ala Ser Cys Cys Leu Leu Phe Thr Gly Phe Leu
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Asn Pro Leu Leu Ser Leu Pro Leu Leu Asp Ser Arg Glu Ile Ser
 20 25 30

Phe Gln Leu Ser Ala Pro His Glu Asp Ala Arg Leu Thr Pro Glu
 35 40 45

Glu Leu Glu Arg Ala Ser Leu Leu Gln Ile Leu Pro Glu Met Leu
 50 55 60

Gly Ala Glu Arg Gly Asp Ile Leu Arg Lys Ala Asp Ser Ser Thr
65 70 75
Asn Ile Phe Asn Pro Arg Gly Asn Leu Arg Lys Phe Gln Asp Phe
80 85 90
Ser Gly Gln Asp Pro Asn Ile Leu Leu Ser His Leu Leu Ala Arg
95 100 105
Ile Trp Lys Pro Tyr Lys Lys Arg Glu Thr Pro Asp Cys Phe Trp
110 115 120
Lys Tyr Cys Val

<210> 267
<211> 654
<212> DNA
<213> Homo sapiens

<400> 267
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taaggacctg acagccacca ggcaccacct ccgccaggaa ctgcaggccc 150
acctgtctgc aacccagctg aggccatgcc ctccccaggg accgtctgca 200
gcctcctgct cctcggcatg ctctggctgg acttggccat ggcaggctcc 250
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gaagccacca gccaaagtgc agccccgagc tctagcaggc tggctccgcc 350
cggaagatgg aggtcaagca gaaggggcag aggatgaact ggaagtccgg 400
ttcaacgccc cctttgatgt tggaatcaag ctgtcagggg ttcagtacca 450
gcagcacagc caggccctgg ggaagtttct tcaggacatc ctctgggaag 500
aggccaaga ggccccagcc gacaagtgat cggccacaag ccttactcac 550
ctctctctaa gtttagaagc gctcatctgg cttttogctt gcttctcgag 600
caactcccac gactgttgta caagctcagg aggcgaataa atgttcaaac 650
tgta 654

<210> 268
<211> 117
<212> PRT
<213> Homo sapiens

<400> 268
Met Pro Ser Pro Gly Thr Val Cys Ser Leu Leu Leu Gly Met
1 5 10 15
Leu Trp Leu Asp Leu Ala Met Ala Gly Ser Ser Phe Leu Ser Pro
20 25 30
Glu His Gln Arg Val Gln Gln Arg Lys Glu Ser Lys Lys Pro Pro
35 40 45

Ala Lys Leu Gln Pro Arg Ala Leu Ala Gly Trp Leu Arg Pro Glu
50 55 60
Asp Gly Gly Gln Ala Glu Gly Ala Glu Asp Glu Leu Glu Val Arg
65 70 75
Phe Asn Ala Pro Phe Asp Val Gly Ile Lys Leu Ser Gly Val Gln
80 85 90
Tyr Gln Gln His Ser Gln Ala Leu Gly Lys Phe Leu Gln Asp Ile
95 100 105
Leu Trp Glu Glu Ala Lys Glu Ala Pro Ala Asp Lys
110 115

<210> 269
<211> 1332
<212> DNA
<213> Homo sapiens

<400> 269
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agaatatgaa cacgtggctg ctgttctccc ccctgttccc ggtgcagggtg 150
cagaccctga tagtcgtgat catcgggatg ctctgtctcc tgctggactt 200
tcttggcttg gtgcacctgg gccagctgct catcttccac atctacctga 250
gtatgtcccc caccctaagc ccccgatccc cccaaggctg ggtggtcaga 300
gctgtctcat ttacacctct acttgagtat gtccctaacc ctgagcccc 350
caagcctggg gccagagtct ttgtcccccg tgtgcgcatg tgttcagggt 400
cagcctctcc cagaagttag atcatggaca aaaagggcaa atcacaggaa 450
gaaattaaat ccatgaggac ccagcaggcc cagcaagaag ctgaactcac 500
gccagacatc gcaggagtgg tggcagggtc ttgaagtaac aagtttaaaa 550
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gctgtggcct ctccaggggt ttctgtggac acgggcagca gagtgtgtcc 950
aggccagccc ccaagaatgc cctgctcctg acagcttggc caacccctgg 1000
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cagagcatcc cctgcctgca gttgtggcaa gaacgcccag ctcagaatga 1100
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 accactgtcc ccacacaacc ctggggatgt tttaaaacac acacctctaa 1200
 cgcatacttt acagtcaactg ttgtcttgcc tgagggttga atttttttta 1250
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa 1332

<210> 270

<211> 142

<212> PRT

<213> Homo sapiens

<400> 270

Met	Asn	Thr	Trp	Leu	Leu	Phe	Leu	Pro	Leu	Phe	Pro	Val	Gln	Val
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Gln	Thr	Leu	Ile	Val	Val	Ile	Ile	Gly	Met	Leu	Val	Leu	Leu	Leu
				20					25					30
Asp	Phe	Leu	Gly	Leu	Val	His	Leu	Gly	Gln	Leu	Leu	Ile	Phe	His
				35					40					45
Ile	Tyr	Leu	Ser	Met	Ser	Pro	Thr	Leu	Ser	Pro	Arg	Ser	Pro	Gln
				50					55					60
Gly	Trp	Val	Val	Arg	Ala	Ala	His	Leu	Thr	Pro	Leu	Leu	Glu	Tyr
				65					70					75
Val	Pro	Asn	Pro	Glu	Pro	Pro	Thr	Pro	Gly	Ala	Arg	Val	Phe	Val
				80					85					90
Pro	Arg	Val	Arg	Met	Cys	Ser	Gly	Ser	Ala	Ser	Pro	Arg	Ser	Glu
				95					100					105
Ile	Met	Asp	Lys	Lys	Gly	Lys	Ser	Gln	Glu	Glu	Ile	Lys	Ser	Met
				110					115					120
Arg	Thr	Gln	Gln	Ala	Gln	Gln	Glu	Ala	Glu	Leu	Thr	Pro	Arg	Pro
				125					130					135
Ala	Gly	Val	Val	Pro	Gly	Ala								
				140										

<210> 271

<211> 1484

<212> DNA

<213> Homo sapiens

<400> 271

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 cctatctgcc atcctcagca tgctatcaact cagcttctcc acaacatccc 150
 tgctcagcaa ctactggttt gtgggcacac agaagtgccc caagcccctg 200
 tgcgagaaa gtctggcagc caagtgtttt gacatgccag tgtccctgga 250

tggagatacc aacacatcca cccaggaggt ggtacaatac aactgggaga 300
 ctggggatga cgggttctcc ttccggagct tccggagtgg catgtggcta 350
 tctgtgagg aaactgtgga agaaccaggg gagaggtgcc gaagtttcat 400
 tgaacttaca ccaccagcca agagaggtga gaaaggacta ctggaatttg 450
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 gcgactgtca acttgggtcc agaagactgg agaccacatg tttggaatta 800
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 ccatcagtggt ttccctcggc ggctgtcaag tgcagccccc accgtgggtc 1000
 ctttgaccag ctaccaccag tatcataate agcccatcca ctctgtctct 1050
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 ggcagccagc gagctgaaag aagcagttag gtcattctga gaggaagagc 1150
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 tctaaggga ttctgggtg ccaactgtct ctttctctct acagctccat 1350
 cttgtttcac ccaccacaca tctcacat ccagaattcc cttctttact 1400
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 gtaaaataca cttcccgacc ttaaggatct gaaa 1484

<210> 272

<211> 285

<212> PRT

<213> Homo sapiens

<400> 272

Met	Ala	Lys	Met	Glu	Leu	Ser	Lys	Ala	Phe	Ser	Gly	Gln	Arg	Thr
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Leu	Leu	Ser	Ala	Ile	Leu	Ser	Met	Leu	Ser	Leu	Ser	Phe	Ser	Thr
				20						25				30

Thr Ser Leu Leu Ser Asn Tyr Trp Phe Val Gly Thr Gln Lys Val

	35		40		45
Pro Lys Pro Leu Cys	Glu Lys Gly Leu	Ala Ala Lys Cys Phe	Asp		
	50		55		60
Met Pro Val Ser Leu	Asp Gly Asp Thr	Asn Thr Ser Thr Gln	Glu		
	65		70		75
Val Val Gln Tyr	Asn Trp Glu Thr Gly	Asp Asp Arg Phe Ser	Phe		
	80		85		90
Arg Ser Phe Arg Ser	Gly Met Trp Leu	Ser Cys Glu Glu Thr	Val		
	95		100		105
Glu Glu Pro Gly Glu	Arg Cys Arg Ser	Phe Ile Glu Leu Thr	Pro		
	110		115		120
Pro Ala Lys Arg Gly	Glu Lys Gly Leu	Leu Glu Phe Ala Thr	Leu		
	125		130		135
Gln Gly Pro Cys His	Pro Thr Leu Arg	Phe Gly Gly Lys Arg	Leu		
	140		145		150
Met Glu Lys Ala Ser	Leu Pro Ser Pro	Pro Leu Gly Leu Cys	Gly		
	155		160		165
Lys Asn Pro Met Val	Ile Pro Gly Asn	Ala Asp His Leu His	Arg		
	170		175		180
Thr Ser Ile His Gln	Leu Pro Pro Ala	Thr Asn Arg Leu Ala	Thr		
	185		190		195
His Trp Glu Pro Cys	Leu Trp Ala Gln	Thr Glu Arg Leu Cys	Cys		
	200		205		210
Cys Phe Leu Cys Pro	Val Arg Ser Pro	Gly Asp Gly Gly Pro	His		
	215		220		225
Asp Val Phe Thr Ser	Leu Pro Ser Asp	Cys Gln Leu Gly Ser	Arg		
	230		235		240
Arg Leu Glu Thr Thr	Cys Leu Glu Leu	Trp Leu Gly Leu Leu	His		
	245		250		255
Gly Leu Ala Leu Leu	His Leu Leu His	Gly Val Gly Cys His	His		
	260		265		270
Leu Gln His Val His	Gln Asp Gly Ala	Gly Val Gln Val Gln	Ala		
	275		280		285

<210> 273

<211> 1158

<212> DNA

<213> Homo sapiens

<400> 273

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 ctcaactaag tctcaggcct gtcagcagct cctgtggaca ttgccatccc 150
 ctctggtagc cttcagagca aacaggacaa cctatgttat ggatgtttcc 200

accaaccagg gtagtggcat ggagcaccgt aaccatctgt gcttctgtga 250
 tctctatgac agagccactt ctccacctct gaaatgttcc ctgctctgaa 300
 atctggcatg agatggcaca ggtgaccacg cagaagccac cagaatcttg 350
 cctgcccctat tcttctctcc aagtctgttc tcttattgtc aacctcagca 400
 caacaggctg ggcgcaatgg cattacagag aaagcaatct gtgtggctag 450
 tgggcagatt accatgcaag cccagggaga aatggaggag cttttagtgc 500
 acctccctgt cagccagtat taacatgtcc ccttccccct gccccgcgt 550
 agattcagga cattcgcccc tgtgtgccac caaaccagga ctttccccct 600
 ggcttgcat ccttggtctt ctctgtgtac ccagcaagac gtctgttcca 650
 gggcagtgtg gcatotttca agctccgtta ctatggcat ggccatgatg 700
 ttacaatccc acttgctga ataatacaagt gggaagggga agcagagggga 750
 aatggggcca tgtgaatgca gctgctctgt tctccctacc ctgaggaaaa 800
 accaaagggga agcaacagga acttctgcaa ctggttttta tcggaaagat 850
 catctgcct gcagatgctg ttgaaggggc acaagaaatg tagctggaga 900
 agattgatga aagtgcaggt gtgtaaggaa atagaacagt ctgctggagg 950
 tcagacctgg aattctgatt ccaaaactctt tattactttg ggaagtcact 1000
 cagcctcccc gtagccatct ccaggggtgac ggaaccaggt gtattacctg 1050
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 cactgaaa 1158

<210> 274
 <211> 86
 <212> PRT
 <213> Homo sapiens

<400> 274
 Met Trp Leu Pro Leu Gly Leu Leu Ser Leu Cys Leu Ser Pro Leu 15
 1 5 10
 Pro Ile Leu Ser Ser Pro Ser Leu Lys Ser Gln Ala Cys Gln Gln 30
 20 25
 Leu Leu Trp Thr Leu Pro Ser Pro Leu Val Ala Phe Arg Ala Asn 45
 35 40
 Arg Thr Thr Tyr Val Met Asp Val Ser Thr Asn Gln Gly Ser Gly 60
 50 55
 Met Glu His Arg Asn His Leu Cys Phe Cys Asp Leu Tyr Asp Arg 75
 65 70
 Ala Thr Ser Pro Pro Leu Lys Cys Ser Leu Leu 85
 80

<210> 275
 <211> 2694
 <212> DNA
 <213> Homo sapiens

<400> 275
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 gtcgtgggagc caggagcgac gtcacgccca tggcaggcat caaagctttg 100
 attagtttgt cctttggagg agcaatcgga ctgatgtttt tgatgcttgg 150
 atgtgccctt ccaatataca acaaatactg gccctctttt gttctatctt 200
 tttacatcct ttcacctatt ccatactgca tagcaagaag attagtggat 250
 gatacagatg ctatgagtaa cgottgtaag gaacttgcca tctttcttac 300
 aacgggcatt gtcgtgtcag cttttggact ccctattgta tttgccagag 350
 cacatctgat tgagtgggga gcttgtgcac ttgtctcac aggaacacaca 400
 gtcacttttg caactatact aggccttttc ttggtctttg gaagcaatga 450
 cgacttcagc tggcagcagc ggtgaaaaga aattactgaa ctattgtcaa 500
 atggacttcc tgtcatttgt tggccattca cgcacacagg agatggggca 550
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 ttacaaaaaa ttataaaaat aagttttcag tcagtcagga tgacatcact 950
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 actcagtgcg aatatagctg catttatacc tcagaggggc caagtgttaa 1050
 tgccccatgc ctccgttaag ggtgttggtt ttactggga gacagatgtt 1100
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<210> 276

<211> 131

<212> PRT

<213> Homo sapiens

<400> 276

Met	Ala	Gly	Ile	Lys	Ala	Leu	Ile	Ser	Leu	Ser	Phe	Gly	Gly	Ala
1				5					10					15

Ile	Gly	Leu	Met	Phe	Leu	Met	Leu	Gly	Cys	Ala	Leu	Pro	Ile	Tyr
			20						25				30	

Asn Lys Tyr Trp Pro Leu Phe Val Leu Phe Phe Tyr Ile Leu Ser

Pro	Ile	Pro	Tyr	Cys	Ile	Ala	Arg	Arg	Leu	Val	Asp	Asp	Thr	Arg	
				50					55					60	
Ala	Met	Ser	Asn	Ala	Cys	Lys	Glu	Leu	Ala	Ile	Phe	Leu	Thr	Thr	
				65					70					75	
Gly	Ile	Val	Val	Ser	Ala	Phe	Gly	Leu	Pro	Ile	Val	Phe	Ala	Arg	
				80					85					90	
Ala	His	Leu	Ile	Glu	Trp	Gly	Ala	Cys	Ala	Leu	Val	Leu	Thr	Gly	
				95					100					105	
Asn	Thr	Val	Ile	Phe	Ala	Thr	Ile	Leu	Gly	Phe	Phe	Leu	Val	Phe	
				110					115					120	
Gly	Ser	Asn	Asp	Asp	Phe	Ser	Trp	Gln	Gln	Trp					
				125					130						

<210> 277
 <211> 4104
 <212> DNA
 <213> Homo sapiens

<400> 277
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 cacactgcct ggtggaggga aggagcccgg gcgcctctcg ccgtccccc 150
 cgcgcgcgtc cgcacctccc caccgcccgc cgcgcgcgcg ccgcgcgccg 200
 caaagcatga gtgagcccg ctcctgcagc tgcccggggc gcgaatggca 250
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 gacggacatt aaccagactg tcagatcctg gggagtgcgc agccccgagt 350
 ttggagtttt ttccccccac aacgtcacag tccgaactgc agagggaaaag 400
 gaaggcggca ggaaggcgaa gctcgggctc cggcacgtag ttgggaaact 450
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 gtgcgcatct tcaggactg ccgcagcctc aagtttctcg acatcgata 1300
 caatcagctc aagagtctgg cgcgcaactc tttgcgggc ttgtttaagc 1350
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 aaccttcagg acagctctatc ttaaatttca tatgagaact ccttctctcc 2550

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 tatgtttctg cgttgtgtgt cttttagggc aagcaaacgt tgtctacaca 2850
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 atttgggtct gccattgaca gaatgtcaaa taaaaaggaa ttagctagaa 4050
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 gtca 4104

<210> 278
 <211> 522
 <212> PRT
 <213> Homo sapiens

<400> 278

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Arg	Pro	Ser	Gly	Val	Val	Leu	Cys	Leu	Leu	Gly	Ala	Cys	Phe	Gln
			20					25					30	
Met	Leu	Pro	Ala	Ala	Pro	Ser	Gly	Cys	Pro	Gln	Leu	Cys	Arg	Cys
			35					40					45	
Glu	Gly	Arg	Leu	Leu	Tyr	Cys	Glu	Ala	Leu	Asn	Leu	Thr	Glu	Ala
			50					55					60	
Pro	His	Asn	Leu	Ser	Gly	Leu	Leu	Gly	Leu	Ser	Leu	Arg	Tyr	Asn
			65					70					75	
Ser	Leu	Ser	Glu	Leu	Arg	Ala	Gly	Gln	Phe	Thr	Gly	Leu	Met	Gln
			80					85					90	
Leu	Thr	Trp	Leu	Tyr	Leu	Asp	His	Asn	His	Ile	Cys	Ser	Val	Gln
			95					100					105	
Gly	Asp	Ala	Phe	Gln	Lys	Leu	Arg	Arg	Val	Lys	Glu	Leu	Thr	Leu
			110					115					120	
Ser	Ser	Asn	Gln	Ile	Thr	Gln	Leu	Pro	Asn	Thr	Thr	Phe	Arg	Pro
			125					130					135	
Met	Pro	Asn	Leu	Arg	Ser	Val	Asp	Leu	Ser	Tyr	Asn	Lys	Leu	Gln
			140					145					150	
Ala	Leu	Ala	Pro	Asp	Leu	Phe	His	Gly	Leu	Arg	Lys	Leu	Thr	Thr
			155					160					165	
Leu	His	Met	Arg	Ala	Asn	Ala	Ile	Gln	Phe	Val	Pro	Val	Arg	Ile
			170					175					180	
Phe	Gln	Asp	Cys	Arg	Ser	Leu	Lys	Phe	Leu	Asp	Ile	Gly	Tyr	Asn
			185					190					195	
Gln	Leu	Lys	Ser	Leu	Ala	Arg	Asn	Ser	Phe	Ala	Gly	Leu	Phe	Lys
			200					205					210	
Leu	Thr	Glu	Leu	His	Leu	Glu	His	Asn	Asp	Leu	Val	Lys	Val	Asn
			215					220					225	
Phe	Ala	His	Phe	Pro	Arg	Leu	Ile	Ser	Leu	His	Ser	Leu	Cys	Leu
			230					235					240	
Arg	Arg	Asn	Lys	Val	Ala	Ile	Val	Val	Ser	Ser	Leu	Asp	Trp	Val
			245					250					255	
Trp	Asn	Leu	Glu	Lys	Met	Asp	Leu	Ser	Gly	Asn	Glu	Ile	Glu	Tyr
			260					265					270	
Met	Glu	Pro	His	Val	Phe	Glu	Thr	Val	Pro	His	Leu	Gln	Ser	Leu
			275					280					285	

Gln	Leu	Asp	Ser	Asn	Arg	Leu	Thr	Tyr	Ile	Glu	Pro	Arg	Ile	Leu	
				290					295					300	
Asn	Ser	Trp	Lys	Ser	Leu	Thr	Ser	Ile	Thr	Leu	Ala	Gly	Asn	Leu	
				305					310					315	
Trp	Asp	Cys	Gly	Arg	Asn	Val	Cys	Ala	Leu	Ala	Ser	Trp	Leu	Ser	
				320					325					330	
Asn	Phe	Gln	Gly	Arg	Tyr	Asp	Gly	Asn	Leu	Gln	Cys	Ala	Ser	Pro	
				335					340					345	
Glu	Tyr	Ala	Gln	Gly	Glu	Asp	Val	Leu	Asp	Ala	Val	Tyr	Ala	Phe	
				350					355					360	
His	Leu	Cys	Glu	Asp	Gly	Ala	Glu	Pro	Thr	Ser	Gly	His	Leu	Leu	
				365					370					375	
Ser	Ala	Val	Thr	Asn	Arg	Ser	Asp	Leu	Gly	Pro	Pro	Ala	Ser	Ser	
				380					385					390	
Ala	Thr	Thr	Leu	Ala	Asp	Gly	Gly	Glu	Gly	Gln	His	Asp	Gly	Thr	
				395					400					405	
Phe	Glu	Pro	Ala	Thr	Val	Ala	Leu	Pro	Gly	Gly	Glu	His	Ala	Glu	
				410					415					420	
Asn	Ala	Val	Gln	Ile	His	Lys	Val	Val	Thr	Gly	Thr	Met	Ala	Leu	
				425					430					435	
Ile	Phe	Ser	Phe	Leu	Ile	Val	Val	Leu	Val	Leu	Tyr	Val	Ser	Trp	
				440					445					450	
Lys	Cys	Phe	Pro	Ala	Ser	Leu	Arg	Gln	Leu	Arg	Gln	Cys	Phe	Val	
				455					460					465	
Thr	Gln	Arg	Arg	Lys	Gln	Lys	Gln	Lys	Gln	Thr	Met	His	Gln	Met	
				470					475					480	
Ala	Ala	Met	Ser	Ala	Gln	Glu	Tyr	Tyr	Val	Asp	Tyr	Lys	Pro	Asn	
				485					490					495	
His	Ile	Glu	Gly	Ala	Leu	Val	Ile	Ile	Asn	Glu	Tyr	Gly	Ser	Cys	
				500					505					510	
Thr	Cys	His	Gln	Gln	Pro	Ala	Arg	Glu	Cys	Glu	Val				
				515					520						

<210> 279

<211> 46

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 279

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<210> 280

<211> 709

<212> DNA

<213> Homo sapiens

<400> 280
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 ctgcagctct gcgactgac ccaggcggtc tccaaactct gggtcccaaa 100
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 ccggcgggcgc cgttgagttc ccggcggaca agatggtgtc agtccgtgtg 200
 caagaaggtc acgccgtctc agacatgctc ctgccgtgtg atggggaact 250
 cgtctgggtc tcaggagccg gattcggtgt ctcagacgtg ggctcgacc 300
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 tcctggcatg acccgcacct gtggcgctct ggggacgagg cacctggcct 400
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 ttccgcctag tgacctcttc cgcgtggggc tcggccctgg cgttagcccc 500
 gtgcgtgtcc gcagcatctc ggctctgggc cggacgttca cgcgcgacga 550
 ggacctgggt gtttctctgg cgtcccgccg gggccgccta cgctccacg 600
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 ccagccct 709

<210> 281
 <211> 229
 <212> PRT
 <213> Homo sapiens

<400> 281
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 Leu Thr Gln Ala Val Ser Lys Leu Trp Val Pro Asn Thr Asp Phe
 20 25 30
 Asp Val Ala Ala Asn Trp Ser Gln Asn Arg Thr Pro Cys Ala Gly
 35 40 45
 Gly Ala Val Glu Phe Pro Ala Asp Lys Met Val Ser Val Leu Val
 50 55 60
 Gln Glu Gly His Ala Val Ser Asp Met Leu Leu Pro Leu Asp Gly
 65 70 75
 Glu Leu Val Leu Ala Ser Gly Ala Gly Phe Gly Val Ser Asp Val
 80 85 90
 Gly Ser His Leu Asp Cys Gly Ala Gly Glu Pro Ala Val Phe Arg
 95 100 105
 Asp Ser Asp Arg Phe Ser Trp His Asp Pro His Leu Trp Arg Ser
 110 115 120
 Gly Asp Glu Ala Pro Gly Leu Phe Phe Val Asp Ala Glu Arg Val
 125 130 135

Pro Cys Arg His Asp Asp Val Phe Phe Pro Pro Ser Ala Ser Phe
140 145 150

Arg Val Gly Leu Gly Pro Gly Ala Ser Pro Val Arg Val Arg Ser
155 160 165

Ile Ser Ala Leu Gly Arg Thr Phe Thr Arg Asp Glu Asp Leu Ala
170 175 180

Val Phe Leu Ala Ser Arg Ala Gly Arg Leu Arg Phe His Gly Pro
185 190 195

Gly Ala Leu Ser Val Gly Pro Glu Asp Cys Ala Asp Pro Ser Gly
200 205 210

Cys Val Cys Gly Asn Ala Glu Ala Gln Pro Trp Ile Cys Ala Ala
215 220 225

Leu Leu Gln Pro

<210> 282
<211> 644
<212> DNA
<213> Homo sapiens

<400> 282
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tgtgtttgc acttaccctg tgttctgcct ttgggtggca taacaaggga 150
cttgcaacta tcttctgcat ttgcagttct ttggcattga cgtggtacag 200
ccttttcctc ataccattg caagggatgc tgtgaagaag tgttttgccg 250
tgtgtcttgc ataattcatg gccagtttta tgaagctttg gaaggcacta 300
tggacagaag ctggtggaca gttttgtaac tatcttcgaa acctctgtct 350
tacagacatg tgccttttat cttgcagcaa tgtgttgctt gtgattcgaa 400
catttgaggg ttacttttgg aagcaacaat acattctcga acctgaatgt 450
cagtagcaca ggatgagaag tgggttctgt atcttgtgga gtggaatctt 500
cctcatgtac ctgtttcctc tctggatgtt gtccactga attcccatga 550
atacaaacct attcagcaac agcaaaaaaa aaaaaaaaaa aaaaaaaaaa 600
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 644

<210> 283
<211> 77
<212> PRT
<213> Homo sapiens

<400> 283
Met Gly Pro Val Lys Gln Leu Lys Arg Met Phe Glu Pro Thr Arg
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Cys Ser Ala Phe Trp Trp His Asn Lys Gly Leu Ala Leu Ile Phe
35 40 45

Cys Ile Leu Gln Ser Leu Ala Leu Thr Trp Tyr Ser Leu Ser Phe
50 55 60

Ile Pro Phe Ala Arg Asp Ala Val Lys Lys Cys Phe Ala Val Cys
65 70 75

Leu Ala

<210> 284

<211> 2623

<212> DNA

<213> Homo sapiens

<400> 284

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gagagaaat tagggggaga aaggacagag agagcaacta ccatccatag 200
ccagatagat tatcttacac tgaactgac aagtactttg aaaatgactt 250
cgaaatttat cttggtgtcc ttcatacttg ctgcactgag tctttcaacc 300
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ggataaaaaa aaaaaaaaaa aaa 2623

<210> 285

<211> 477
 <212> PRT
 <213> Homo sapiens

<400> 285

Met	Thr	Ser	Lys	Phe	Ile	Leu	Val	Ser	Phe	Ile	Leu	Ala	Ala	Leu	1	5	10	15
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Leu	Leu	Val	Ser	Phe	Asp	Gly	Phe	Arg	Trp	Asp	Tyr	Leu	Tyr	Lys	35	40	45	
Val	Pro	Thr	Pro	His	Phe	His	Tyr	Ile	Met	Lys	Tyr	Gly	Val	His	50	55	60	
Val	Lys	Gln	Val	Thr	Asn	Val	Phe	Ile	Thr	Lys	Thr	Tyr	Pro	Asn	65	70	75	
His	Tyr	Thr	Leu	Val	Thr	Gly	Leu	Phe	Ala	Glu	Asn	His	Gly	Ile	80	85	90	
Val	Ala	Asn	Asp	Met	Phe	Asp	Pro	Ile	Arg	Asn	Lys	Ser	Phe	Ser	95	100	105	
Leu	Asp	His	Met	Asn	Ile	Tyr	Asp	Ser	Lys	Phe	Trp	Glu	Glu	Ala	110	115	120	
Thr	Pro	Ile	Trp	Ile	Thr	Asn	Gln	Arg	Ala	Gly	His	Thr	Ser	Gly	125	130	135	
Ala	Ala	Met	Trp	Pro	Gly	Thr	Asp	Val	Lys	Ile	His	Lys	Arg	Phe	140	145	150	
Pro	Thr	His	Tyr	Met	Pro	Tyr	Asn	Glu	Ser	Val	Ser	Phe	Glu	Asp	155	160	165	
Arg	Val	Ala	Lys	Ile	Val	Glu	Trp	Phe	Thr	Ser	Lys	Glu	Pro	Ile	170	175	180	
Asn	Leu	Gly	Leu	Leu	Tyr	Trp	Glu	Asp	Pro	Asp	Asp	Met	Gly	His	185	190	195	
His	Leu	Gly	Pro	Asp	Ser	Pro	Leu	Met	Gly	Pro	Val	Ile	Ser	Asp	200	205	210	
Ile	Asp	Lys	Lys	Leu	Gly	Tyr	Leu	Ile	Gln	Met	Leu	Lys	Lys	Ala	215	220	225	
Lys	Leu	Trp	Asn	Thr	Leu	Asn	Leu	Ile	Ile	Thr	Ser	Asp	His	Gly	230	235	240	
Met	Thr	Gln	Cys	Ser	Glu	Glu	Arg	Leu	Ile	Glu	Leu	Asp	Gln	Tyr	245	250	255	
Leu	Asp	Lys	Asp	His	Tyr	Thr	Leu	Ile	Asp	Gln	Ser	Pro	Val	Ala	260	265	270	
Ala	Ile	Leu	Pro	Lys	Glu	Gly	Lys	Phe	Asp	Glu	Val	Tyr	Glu	Ala	275	280	285	
Leu	Thr	His	Ala	His	Pro	Asn	Leu	Thr	Val	Tyr	Lys	Lys	Glu	Asp				

290	295	300
Val Pro Glu Arg Trp His Tyr Lys Tyr	Asn Ser Arg Ile Gln Pro	
305	310	315
Ile Ile Ala Val Ala Asp Glu Gly Trp	His Ile Leu Gln Asn Lys	
320	325	330
Ser Asp Asp Phe Leu Leu Gly Asn His	Gly Tyr Asp Asn Ala Leu	
335	340	345
Ala Asp Met His Pro Ile Phe Leu Ala	His Gly Pro Ala Phe Arg	
350	355	360
Lys Asn Phe Ser Lys Glu Ala Met Asn	Ser Thr Asp Leu Tyr Pro	
365	370	375
Leu Leu Cys His Leu Leu Asn Ile Thr	Ala Met Pro His Asn Gly	
380	385	390
Ser Phe Trp Asn Val Gln Asp Leu Leu	Asn Ser Ala Met Pro Arg	
395	400	405
Val Val Pro Tyr Thr Gln Ser Thr Ile	Leu Leu Pro Gly Ser Val	
410	415	420
Lys Pro Ala Glu Tyr Asp Gln Glu Gly	Ser Tyr Pro Tyr Phe Ile	
425	430	435
Gly Val Ser Leu Gly Ser Ile Ile Val	Ile Val Phe Phe Val Ile	
440	445	450
Phe Ile Lys His Leu Ile His Ser Gln	Ile Pro Ala Leu Gln Asp	
455	460	465
Met His Ala Glu Ile Ala Gln Pro Leu	Leu Gln Ala	
470	475	

<210> 286
 <211> 1337
 <212> DNA
 <213> Homo sapiens

<400> 286
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 agggagggtga agaaaccaag acgcagagag gccaaagccc ttgccttggg 150
 tcacacagcc aaaggaggca gagccagaac tcacaaccag atccagaggc 200
 aacaggggaca tggccacctg ggacgaaaag gcagtcaccc gcaggggccaa 250
 ggtggctccc gctgagagga tgagcaagtt ctaaggcac ttcacgtctg 300
 tgggagacga ctaccatgcc tggaacatca actacaagaa atgggagaat 350
 gaagaggagg aggaggagga ggagcagcca ccaccacac cagtctcagg 400
 cgaggaaggc agagctgcag cccctgacgt tgccctgcc cctggccccc 450
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tccacacaggt ttcaggtcat catcatctgc ttggtgggtc tggatgccct 550
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 agagaacctg acagtactg gccagttatc acttcagatt acaaatcaca 1200
 cagagcatct gctgttttc aatcacaga gaacaaaacc aaaatctata 1250
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 taaaaaaaa aaaaaaaaa aaaaaaaaa aaaaaaa 1337

<210> 287
 <211> 255
 <212> PRT
 <213> Homo sapiens

<400> 287
 Met Ala Thr Trp Asp Glu Lys Ala Val Thr Arg Arg Ala Lys Val
 1 5 10 15
 Ala Pro Ala Glu Arg Met Ser Lys Phe Leu Arg His Phe Thr Val
 20 25 30
 Val Gly Asp Asp Tyr His Ala Trp Asn Ile Asn Tyr Lys Lys Trp
 35 40 45
 Glu Asn Glu Glu Glu Glu Glu Glu Gln Pro Pro Pro Thr
 50 55 60
 Pro Val Ser Gly Glu Glu Gly Arg Ala Ala Ala Pro Asp Val Ala
 65 70 75
 Pro Ala Pro Gly Pro Ala Pro Arg Ala Pro Leu Asp Phe Arg Gly
 80 85 90
 Met Leu Arg Lys Leu Phe Ser Ser His Arg Phe Gln Val Ile Ile
 95 100 105
 Ile Cys Leu Val Val Leu Asp Ala Leu Leu Val Leu Ala Glu Leu
 110 115 120

Ile	Leu	Asp	Leu	Lys	Ile	Ile	Gln	Pro	Asp	Lys	Asn	Asn	Tyr	Ala	
				125					130					135	
Ala	Met	Val	Phe	His	Tyr	Met	Ser	Ile	Thr	Ile	Leu	Val	Phe	Phe	
				140					145					150	
Met	Met	Glu	Ile	Ile	Phe	Lys	Leu	Phe	Val	Phe	Arg	Leu	Ser	Ser	
				155					160					165	
Phe	Thr	Thr	Ser	Leu	Arg	Ser	Trp	Met	Pro	Val	Val	Val	Val	Val	
				170					175					180	
Ser	Phe	Ile	Leu	Asp	Ile	Val	Leu	Leu	Phe	Gln	Glu	His	Gln	Phe	
				185					190					195	
Glu	Ala	Leu	Gly	Leu	Leu	Ile	Leu	Leu	Arg	Leu	Trp	Arg	Val	Ala	
				200					205					210	
Arg	Ile	Ile	Asn	Gly	Ile	Ile	Ile	Ser	Val	Lys	Thr	Arg	Ser	Glu	
				215					220					225	
Arg	Gln	Leu	Leu	Arg	Leu	Lys	Gln	Met	Asn	Val	Gln	Leu	Ala	Ala	
				230					235					240	
Lys	Ile	Gln	His	Leu	Glu	Phe	Ser	Cys	Ser	Glu	Lys	Pro	Leu	Asp	
				245					250					255	

<210> 288

<211> 3334

<212> DNA

<213> Homo sapiens

<400> 289

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<210> 289
 <211> 469
 <212> PRT
 <213> Homo sapiens

<400> 289
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 20 25 30
 Lys Ser Ile Phe Lys Leu Ser Val Phe Ile Pro Ser Gln Glu Phe
 35 40 45
 Ser Thr Tyr Arg Gln Trp Lys Gln Lys Ile Val Gln Ala Gly Asp
 50 55 60
 Lys Asp Leu Asp Gly Gln Leu Asp Phe Glu Glu Phe Val His Tyr
 65 70 75
 Leu Gln Asp His Glu Lys Lys Leu Arg Leu Val Phe Lys Ile Leu
 80 85 90

Asp Lys Lys Asn	Asp Gly Arg Ile Asp	Ala Gln Glu Ile Met Gln	95	100	105
Ser Leu Arg Asp	Leu Gly Val Lys Ile	Ser Glu Gln Gln Ala Glu	110	115	120
Lys Ile Leu Lys	Ser Met Asp Lys Asn	Gly Thr Met Thr Ile Asp	125	130	135
Trp Asn Glu Trp	Arg Asp Tyr His Leu	Leu His Pro Val Glu Asn	140	145	150
Ile Pro Glu Ile	Ile Leu Tyr Trp Lys	His Ser Thr Ile Phe Asp	155	160	165
Val Gly Glu Asn	Leu Thr Val Pro Asp	Glu Phe Thr Val Glu Glu	170	175	180
Arg Gln Thr Gly	Met Trp Trp Arg His	Leu Val Ala Gly Gly Gly	185	190	195
Ala Gly Ala Val	Ser Arg Thr Cys Thr	Ala Pro Leu Asp Arg Leu	200	205	210
Lys Val Leu Met	Gln Val His Ala Ser	Arg Ser Asn Asn Met Gly	215	220	225
Ile Val Gly Gly	Phe Thr Gln Met Ile	Arg Glu Gly Gly Ala Arg	230	235	240
Ser Leu Trp Arg	Gly Asn Gly Ile Asn	Val Leu Lys Ile Ala Pro	245	250	255
Glu Ser Ala Ile	Lys Phe Met Ala Tyr	Glu Gln Ile Lys Arg Leu	260	265	270
Val Gly Ser Asp	Gln Glu Thr Leu Arg	Ile His Glu Arg Leu Val	275	280	285
Ala Gly Ser Leu	Ala Gly Ala Ile Ala	Gln Ser Ser Ile Tyr Pro	290	295	300
Met Glu Val Leu	Lys Thr Arg Met Ala	Leu Arg Lys Thr Gly Gln	305	310	315
Tyr Ser Gly Met	Leu Asp Cys Ala Arg	Arg Ile Leu Ala Arg Glu	320	325	330
Gly Val Ala Ala	Phe Tyr Lys Gly Tyr	Val Pro Asn Met Leu Gly	335	340	345
Ile Ile Pro Tyr	Ala Gly Ile Asp Leu	Ala Val Tyr Glu Thr Leu	350	355	360
Lys Asn Ala Trp	Leu Gln His Tyr Ala	Val Asn Ser Ala Asp Pro	365	370	375
Gly Val Phe Val	Leu Leu Ala Cys Gly	Thr Met Ser Ser Thr Cys	380	385	390
Gly Gln Leu Ala	Ser Tyr Pro Leu Ala	Leu Val Arg Thr Arg Met	395	400	405

Gln Ala Gln Ala Ser Ile Glu Gly Ala Pro Glu Val Thr Met Ser
 410 415 420

Ser Leu Phe Lys His Ile Leu Arg Thr Glu Gly Ala Phe Gly Leu
 425 430 435

Tyr Arg Gly Leu Ala Pro Asn Phe Met Lys Val Ile Pro Ala Val
 440 445 450

Ser Ile Ser Tyr Val Val Tyr Glu Asn Leu Lys Ile Thr Leu Gly
 455 460 465

Val Gln Ser Arg

<210> 290
 <211> 1658
 <212> DNA
 <213> Homo sapiens

<400> 290
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 atttcaggga gacactccat cacagtcaact actgtgcct cagctgggaa 200
 cattggggag gatggaatcc tgagctgcac ttttgaacct gacatcaaac 250
 tttctgatat cgtgatacaa tggctgaagg aagggttttt aggcttggtc 300
 catgagttca aagaaggcaa agatgagctg tcggagcagg atgaaatgtt 350
 cagaggccgg acagcagtggt ttgctgatca agtgatagtt ggcaatgcct 400
 ctttgcggct gaaaaacgtg caactcacag atgctggcac ctacaaatgt 450
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 tgggcatccc aagttgacca gggagccaac ttctcggaag tctccaatac 650
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 tctacaatgt tacgatcaac aacacatact cctgtatgat tgaaaaatgac 750
 attgcaaag caacagggga tatcaaagt acagaatcgg agatcaaaa 800
 gcggagtcc ctacagctgc taaactcaaa ggcttctctg tgtgtctctt 850
 cttcttttgc catcagctgg gcacttctgc ctctcagccc ttacctgatg 900
 ctaaaataat gtgccttggc caaaaaaaag catgcaaagt cattgttaca 950
 acagggatct acagaactat ttcaccacca gatatgacct agttttatat 1000
 ttctgggagg aaatgaattc atatctagaa gtctggagtg agcaacaacg 1050

agcaagaaac aaaaagaagc caaaagcaga aggcctccaat atgaacaaga 1100
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 gcatccccag atctcagga cctcccctg cctgtcacct ggggagtgag 1250
 aggacaggat agtgcattgt etttgtctct gaatttttag ttatatgtgc 1300
 tgtaatgttg ctctgaggaa gcccttgaa agtctatccc aacatatcca 1350
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 aattgactgc cacttcgcaa ctgagggcg gctgcatttt agtaatgggt 1450
 caaatgattc actttttatg atgcttccaa aggtgccttg gottctcttc 1500
 ccaactgaca aatgccaaag ttgagaaaaa tgatcataat tttagcataa 1550
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 ttaacaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1650
 aaaaaaaaa 1658

<210> 291

<211> 282

<212> PRT

<213> Homo sapiens

<400> 291

Met	Ala	Ser	Leu	Gly	Gln	Ile	Leu	Phe	Trp	Ser	Ile	Ile	Ser	Ile	1	5	10	15
Ile	Ile	Ile	Leu	Ala	Gly	Ala	Ile	Ala	Leu	Ile	Ile	Gly	Phe	Gly	20	25	30	
Ile	Ser	Gly	Arg	His	Ser	Ile	Thr	Val	Thr	Thr	Val	Ala	Ser	Ala	35	40	45	
Gly	Asn	Ile	Gly	Glu	Asp	Gly	Ile	Leu	Ser	Cys	Thr	Phe	Glu	Pro	50	55	60	
Asp	Ile	Lys	Leu	Ser	Asp	Ile	Val	Ile	Gln	Trp	Leu	Lys	Glu	Gly	65	70	75	
Val	Leu	Gly	Leu	Val	His	Glu	Phe	Lys	Glu	Gly	Lys	Asp	Glu	Leu	80	85	90	
Ser	Glu	Gln	Asp	Glu	Met	Phe	Arg	Gly	Arg	Thr	Ala	Val	Phe	Ala	95	100	105	
Asp	Gln	Val	Ile	Val	Gly	Asn	Ala	Ser	Leu	Arg	Leu	Lys	Asn	Val	110	115	120	
Gln	Leu	Thr	Asp	Ala	Gly	Thr	Tyr	Lys	Cys	Tyr	Ile	Ile	Thr	Ser	125	130	135	
Lys	Gly	Lys	Gly	Asn	Ala	Asn	Leu	Glu	Tyr	Lys	Thr	Gly	Ala	Phe	140	145	150	
Ser	Met	Pro	Glu	Val	Asn	Val	Asp	Tyr	Asn	Ala	Ser	Ser	Glu	Thr				

	155		160		165
Leu Arg Cys Glu	Ala Pro Arg Trp Phe	Pro Gln Pro Thr Val Val			
	170	175			180
Trp Ala Ser Gln	Val Asp Gln Gly Ala	Asn Phe Ser Glu Val Ser			
	185	190			195
Asn Thr Ser Phe	Glu Leu Asn Ser Glu	Asn Val Thr Met Lys Val			
	200	205			210
Val Ser Val Leu	Tyr Asn Val Thr Ile	Asn Asn Thr Tyr Ser Cys			
	215	220			225
Met Ile Glu Asn	Asp Ile Ala Lys Ala	Thr Gly Asp Ile Lys Val			
	230	235			240
Thr Glu Ser Glu	Ile Lys Arg Arg Ser	His Leu Gln Leu Leu Asn			
	245	250			255
Ser Lys Ala Ser	Leu Cys Val Ser Ser	Phe Phe Ala Ile Ser Trp			
	260	265			270
Ala Leu Leu Pro	Leu Ser Pro Tyr Leu	Met Leu Lys			
	275	280			

<210> 292
 <211> 1484
 <212> DNA
 <213> Homo sapiens

<400> 292
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 gatgcccttt ctcccaacc agtgtggatc cctctcttat tacctcacct 250
 tggcatcgac agatctgacc ctggctgtgc ccatctgtaa ctctctggct 300
 atcatcttca cactgattgt tgggaaggcc cttggagaag atattggtgg 350
 aaaacgtaag ttagactact gcgagtgagg gacgcagctc tgtgagctc 400
 gacatacctg tgtagttcc ttcccagaac ccatctcccc agagtgggtg 450
 aggacagcgc cttttcccat cctgcccttt cctctgagc tgttttgctt 500
 ccttggggc atcagagttc cctccocctg gacagctctg agaaagacag 550
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 aatttcactc tgcatacaca gctcagtgag taagacccag gggcaacagt 750
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gccctctgggc catgaagtgc tggcagtgag cggatggacc tagcacttcc 850
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 aacctttctg cccagcagc tctcttctctg ctaacatctc aggcctccagc 1050
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 agccagaaat gcaaacggga ggcctctggg actcagtcag agcgctttgg 1200
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 1484

<210> 293
 <211> 180
 <212> PRT
 <213> Homo sapiens

<400> 293
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 20 25 30
 Gly Leu Gln Arg Val His Glu Pro Thr Trp Ala Gln Gln Leu Leu
 35 40 45
 Gln Glu Met Lys Thr Leu Phe Leu Asn Thr Glu Tyr Leu Met Pro
 50 55 60
 Phe Leu Leu Asn Gln Cys Gly Ser Leu Leu Tyr Tyr Leu Thr Leu
 65 70 75
 Ala Ser Thr Asp Leu Thr Leu Ala Val Pro Ile Cys Asn Ser Leu
 80 85 90
 Ala Ile Ile Phe Thr Leu Ile Val Gly Lys Ala Leu Gly Glu Asp
 95 100 105
 Ile Gly Gly Lys Arg Lys Leu Asp Tyr Cys Glu Cys Gly Thr Gln
 110 115 120
 Leu Cys Gly Ser Arg His Thr Cys Val Ser Ser Phe Pro Glu Pro
 125 130 135
 Ile Ser Pro Glu Trp Val Arg Thr Arg Pro Phe Pro Ile Leu Pro
 140 145 150

Phe Pro Leu Gln Leu Phe Cys Phe Leu Val Ala Ile Arg Val Pro
155 160 165

Phe Pro Trp Thr Val Trp Arg Lys Thr Glu Ala Gly Val Trp Asp
170 175 180

<210> 294
<211> 1164
<212> DNA
<213> Homo sapiens

<400> 294
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tcgaaaagat tccgcaataa aactttgccg gtgggaagta cctagtgaaa 150
cggcctaaga tgccacttct tctcatgtcc caggcttgag gcctgtggtg 200
ccccatcctt gggagaagtc agctccagca ccatgaaggg catcctcgtt 250
gtcgtgatca ctgcagtgtc tgttcagctc gtagaatctc tgagctgcgt 300
gcagtgtaat tcatgggaaa aatcctgtgt caacagcatt gcctctgaat 350
gtcctcaca tgccaacacc agctgtatca gctcctcagc cagctcctct 400
ctagagacac cagtcagatt ataccagaat atgttctgct cagcggagaa 450
ctgcagttag gagacacaca ttacagcctt cactgtccac gtgtctgctg 500
aagaacactt tcattttgta agccagtgtc gccaaaggaaa ggaatgcagc 550
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aaaaaaaaaa aaaa 1164

<210> 295
<211> 237
<212> PRT

<213> Homo sapiens

<400> 295

Met Lys Gly Ile Leu Val Ala Gly Ile Thr Ala Val Leu Val Ala
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Ala Val Glu Ser Leu Ser Cys Val Gln Cys Asn Ser Trp Glu Lys
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Ser Cys Val Asn Ser Ile Ala Ser Glu Cys Pro Ser His Ala Asn
35 40 45
Thr Ser Cys Ile Ser Ser Ser Ala Ser Ser Ser Leu Glu Thr Pro
50 55 60
Val Arg Leu Tyr Gln Asn Met Phe Cys Ser Ala Glu Asn Cys Ser
65 70 75
Glu Glu Thr His Ile Thr Ala Phe Thr Val His Val Ser Ala Glu
80 85 90
Glu His Phe His Phe Val Ser Gln Cys Cys Gln Gly Lys Glu Cys
95 100 105
Ser Asn Thr Ser Asp Ala Leu Asp Pro Pro Leu Lys Asn Val Ser
110 115 120
Ser Asn Ala Glu Cys Pro Ala Cys Tyr Glu Ser Asn Gly Thr Ser
125 130 135
Cys Arg Gly Lys Pro Trp Lys Cys Tyr Glu Glu Glu Gln Cys Val
140 145 150
Phe Leu Val Ala Glu Leu Lys Asn Asp Ile Glu Ser Lys Ser Leu
155 160 165
Val Leu Lys Gly Cys Ser Asn Val Ser Asn Ala Thr Cys Gln Phe
170 175 180
Leu Ser Gly Glu Asn Lys Thr Leu Gly Gly Val Ile Phe Arg Lys
185 190 195
Phe Glu Cys Ala Asn Val Asn Ser Leu Thr Pro Thr Ser Ala Pro
200 205 210
Thr Thr Ser His Asn Val Gly Ser Lys Ala Ser Leu Tyr Leu Leu
215 220 225
Ala Leu Ala Ser Leu Leu Leu Arg Gly Leu Leu Pro
230 235

<210> 296

<211> 1245

<212> DNA

<213> Homo sapiens

<400> 296

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aatctgggtc cccgggcggc gggggcccaa ggctgaccc agactccgac 200
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 accggagcac cgcccgact ggtcttcccc ggaagacaag gataatccta 300
 gaggacgaga atgatgccat ggccgacgcc gaccgccttg ctggaccage 350
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<210> 297

<211> 341

<212> PRT

<213> Homo sapiens

<400> 297

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Leu	Gly	Pro	Arg	Ala	Ala	Gly	Ala	Gln	Gly	Leu	Thr	Gln	Thr	Pro
				20					25					30
Thr	Glu	Met	Gln	Arg	Val	Ser	Leu	Arg	Phe	Gly	Gly	Pro	Met	Thr
				35					40					45
Arg	Ser	Tyr	Arg	Ser	Thr	Ala	Arg	Thr	Gly	Leu	Pro	Arg	Lys	Thr
				50					55					60
Arg	Ile	Ile	Leu	Glu	Asp	Glu	Asn	Asp	Ala	Met	Ala	Asp	Ala	Asp

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Arg Leu Ala Gly	Pro	Ala Ala Ala Glu	Leu	Leu Ala Ala Thr	Val
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Ser Thr Gly Phe	Ser Arg Ser Ser Ala	Ile Asn Glu Glu Asp	Gly		
	95		100		105
Ser Ser Glu Glu	Gly Val Val Ile Asn Ala	Gly Lys Asp Ser Thr			
	110		115		120
Ser Arg Glu Leu	Pro Ser Ala Thr Pro Asn Thr Ala Gly Ser Ser				
	125		130		135
Ser Thr Arg Phe	Ile Ala Asn Ser Gln Glu Pro Glu Ile Arg Leu				
	140		145		150
Thr Ser Ser Leu	Pro Arg Ser Pro Gly Arg Ser Thr Glu Asp Leu				
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Pro Gly Ser Gln	Ala Thr Leu Ser Gln Trp Ser Thr Pro Gly Ser				
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Thr Pro Ser Arg	Trp Pro Ser Pro Ser Pro Thr Ala Met Pro Ser				
	185		190		195
Pro Glu Asp Leu	Arg Leu Val Leu Met Pro Trp Gly Pro Trp His				
	200		205		210
Cys His Cys Lys	Ser Gly Thr Met Ser Arg Ser Arg Ser Gly Lys				
	215		220		225
Leu His Gly Leu	Ser Gly Arg Leu Arg Val Gly Ala Leu Ser Gln				
	230		235		240
Leu Arg Thr Glu	His Lys Pro Cys Thr Tyr Gln Gln Cys Pro Cys				
	245		250		255
Asn Arg Leu Arg	Glu Glu Cys Pro Leu Asp Thr Ser Leu Cys Thr				
	260		265		270
Asp Thr Asn Cys	Ala Ser Gln Ser Thr Thr Ser Thr Arg Thr Thr				
	275		280		285
Thr Thr Pro Phe	Pro Thr Ile His Leu Arg Ser Ser Pro Ser Leu				
	290		295		300
Pro Pro Ala Ser	Pro Cys Pro Ala Leu Ala Phe Trp Lys Arg Val				
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Arg Ile Gly Leu	Glu Asp Ile Trp Asn Ser Leu Ser Ser Val Phe				
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Thr Glu Met Gln	Pro Ile Asp Arg Asn Gln Arg				
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<210> 298

<211> 2692

<212> DNA

<213> Homo sapiens

<400> 298

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<210> 299

<211> 320

<212> PRT

<213> Homo sapiens

<400> 299

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			20						25					30
Asp	Cys	Val	Leu	Gln	Cys	Glu	Glu	Gln	Asn	Cys	Ser	Gly	Gly	Ala
			35						40					45
Leu	Asn	His	Phe	Arg	Ser	Arg	Gln	Pro	Ile	Tyr	Met	Ser	Leu	Ala
			50						55					60
Gly	Trp	Thr	Cys	Arg	Asp	Asp	Cys	Lys	Tyr	Glu	Cys	Met	Trp	Val
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His	Gly	Lys	Trp	Pro	Phe	Ser	Arg	Phe	Leu	Phe	Phe	Gln	Glu	Pro	
				95					100					105	
Ala	Ser	Ala	Val	Ala	Ser	Phe	Leu	Asn	Gly	Leu	Ala	Ser	Leu	Val	
				110					115					120	
Met	Leu	Cys	Arg	Tyr	Arg	Thr	Phe	Val	Pro	Ala	Ser	Ser	Pro	Met	
				125					130					135	
Tyr	His	Thr	Cys	Val	Ala	Phe	Ala	Trp	Val	Ser	Leu	Asn	Ala	Trp	
				140					145					150	
Phe	Trp	Ser	Thr	Val	Phe	His	Thr	Arg	Asp	Thr	Asp	Leu	Thr	Glu	
				155					160					165	
Lys	Met	Asp	Tyr	Phe	Cys	Ala	Ser	Thr	Val	Ile	Leu	His	Ser	Ile	
				170					175					180	
Tyr	Leu	Cys	Cys	Val	Arg	Thr	Val	Gly	Leu	Gln	His	Pro	Ala	Val	
				185					190					195	
Val	Ser	Ala	Phe	Arg	Ala	Leu	Leu	Leu	Leu	Met	Leu	Thr	Val	His	
				200					205					210	
Val	Ser	Tyr	Leu	Ser	Leu	Ile	Arg	Phe	Asp	Tyr	Gly	Tyr	Asn	Leu	
				215					220					225	
Val	Ala	Asn	Val	Ala	Ile	Gly	Leu	Val	Asn	Val	Val	Trp	Trp	Leu	
				230					235					240	
Ala	Trp	Cys	Leu	Trp	Asn	Gln	Arg	Arg	Leu	Pro	His	Val	Arg	Lys	
				245					250					255	
Cys	Val	Val	Val	Val	Leu	Leu	Leu	Gln	Gly	Leu	Ser	Leu	Leu	Glu	
				260					265					270	
Leu	Leu	Asp	Phe	Pro	Pro	Leu	Phe	Trp	Val	Leu	Asp	Ala	His	Ala	
				275					280					285	
Ile	Trp	His	Ile	Ser	Thr	Ile	Pro	Val	His	Val	Leu	Phe	Phe	Ser	
				290					295					300	
Phe	Leu	Glu	Asp	Asp	Ser	Leu	Tyr	Leu	Leu	Lys	Glu	Ser	Glu	Asp	
				305					310					315	
Lys	Phe	Lys	Leu	Asp											
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<210> 300

<211> 1674

<212> DNA

<213> Homo sapiens

<400> 300

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<210> 301

<211> 461
 <212> PRT
 <213> Homo sapiens

<400> 301

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			20						25					30
Ser	His	Gln	Asn	Leu	Lys	Glu	Phe	Ala	Leu	Thr	Asn	Pro	Glu	Lys
			35						40					45
Ser	Ser	Thr	Lys	Glu	Thr	Glu	Arg	Lys	Glu	Thr	Lys	Ala	Glu	Glu
			50						55					60
Glu	Leu	Asp	Ala	Glu	Val	Leu	Glu	Val	Phe	His	Pro	Thr	His	Glu
			65						70					75
Trp	Gln	Ala	Leu	Gln	Pro	Gly	Gln	Ala	Val	Pro	Ala	Gly	Ser	His
			80						85					90
Val	Arg	Leu	Asn	Leu	Gln	Thr	Gly	Glu	Arg	Glu	Ala	Lys	Leu	Gln
			95						100					105
Tyr	Glu	Asp	Lys	Phe	Arg	Asn	Asn	Leu	Lys	Gly	Lys	Arg	Leu	Asp
			110						115					120
Ile	Asn	Thr	Asn	Thr	Tyr	Thr	Ser	Gln	Asp	Leu	Lys	Ser	Ala	Leu
			125						130					135
Ala	Lys	Phe	Lys	Glu	Gly	Ala	Glu	Met	Glu	Ser	Ser	Lys	Glu	Asp
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Lys	Ala	Arg	Gln	Ala	Glu	Val	Lys	Arg	Leu	Phe	Arg	Pro	Ile	Glu
			155						160					165
Glu	Leu	Lys	Lys	Asp	Phe	Asp	Glu	Leu	Asn	Val	Val	Ile	Glu	Thr
			170						175					180
Asp	Met	Gln	Ile	Met	Val	Arg	Leu	Ile	Asn	Lys	Phe	Asn	Ser	Ser
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Ser	Ser	Ser	Leu	Glu	Glu	Lys	Ile	Ala	Ala	Leu	Phe	Asp	Leu	Glu
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Gln	Lys	Leu	Leu	Val	Ile	Leu	Ala	Thr	Glu	Gln	Pro	Leu	Thr	Ala
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Leu Arg Thr Leu Val	Gln Glu Lys Gly Thr	Glu Val Leu Ala Val			
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Arg Val Val Thr Leu	Leu Tyr Asp Leu	Val Thr Glu Lys Met Phe			
335		340			345
Ala Glu Glu Glu Ala	Glu Leu Thr Gln	Glu Met Ser Pro Glu Lys			
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Leu Gln Gln Tyr Arg	Gln Val His Leu	Leu Pro Gly Leu Trp Glu			
365		370			375
Gln Gly Trp Cys Glu	Ile Thr Ala His	Leu Leu Ala Leu Pro Glu			
380		385			390
His Asp Ala Arg Glu	Lys Val Leu Gln	Thr Leu Gly Val Leu Leu			
395		400			405
Thr Thr Cys Arg Asp	Arg Tyr Arg Gln	Asp Pro Gln Leu Gly Arg			
410		415			420
Thr Leu Ala Ser Leu	Gln Ala Glu Tyr	Gln Val Leu Ala Ser Leu			
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<211> 2136

<212> DNA

<213> Homo sapiens

<400> 302

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 <213> Homo sapiens

<400> 303

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Arg	Val	Ile	Ile	Leu	Val	Ala	Gly	Ala	Phe	Phe	Trp	Leu	Val	Ser	35	40	45	
Leu	Leu	Leu	Ala	Ser	Val	Val	Trp	Phe	Ile	Leu	Val	His	Val	Thr	50	55	60	
Asp	Arg	Ser	Asp	Ala	Arg	Leu	Gln	Tyr	Gly	Leu	Leu	Ile	Phe	Gly	65	70	75	
Ala	Ala	Val	Ser	Val	Leu	Leu	Gln	Glu	Val	Phe	Arg	Phe	Ala	Tyr	80	85	90	
Tyr	Lys	Leu	Leu	Lys	Lys	Ala	Asp	Glu	Gly	Leu	Ala	Ser	Leu	Ser	95	100	105	
Glu	Asp	Gly	Arg	Ser	Pro	Ile	Ser	Ile	Arg	Gln	Met	Ala	Tyr	Val	110	115	120	
Ser	Gly	Leu	Ser	Phe	Gly	Ile	Ile	Ser	Gly	Val	Phe	Ser	Val	Ile	125	130	135	
Asn	Ile	Leu	Ala	Asp	Ala	Leu	Gly	Pro	Gly	Val	Val	Gly	Ile	His	140	145	150	
Gly	Asp	Ser	Pro	Tyr	Tyr	Phe	Leu	Thr	Ser	Ala	Phe	Leu	Thr	Ala	155	160	165	
Ala	Ile	Ile	Leu	Leu	His	Thr	Phe	Trp	Gly	Val	Val	Phe	Phe	Asp	170	175	180	
Ala	Cys	Glu	Arg	Arg	Arg	Tyr	Trp	Ala	Leu	Gly	Leu	Val	Val	Gly	185	190	195	
Ser	His	Leu	Leu	Thr	Ser	Gly	Leu	Thr	Phe	Leu	Asn	Pro	Trp	Tyr	200	205	210	
Glu	Ala	Ser	Leu	Leu	Pro	Ile	Tyr	Ala	Val	Thr	Val	Ser	Met	Gly	215	220	225	
Leu	Trp	Ala	Phe	Ile	Thr	Ala	Gly	Gly	Ser	Leu	Arg	Ser	Ile	Gln	230	235	240	
Arg	Ser	Leu	Leu	Cys	Lys	Asp	245											

<210> 304
 <211> 240
 <212> DNA
 <213> Homo sapiens

<220>

<221> unsure
<222> 108, 123, 126, 154, 198, 206, 217
<223> unknown base

<400> 304
aagctggttt aaggaagcag aggaggggta gattcgttga gtgaggacgg 50
aagatcaacc catttcatt ccgccagatg gcctatgttt ctggtctctc 100
ccttcggnat catcagtggt gtnttntctg ttatcaatat ttggctgat 150
gcanttgggc cagggtgtgtg tgggatccat ggagactcac cctattantt 200
cctganttca gcctttntga cagcagccat tatcctgctc 240

<210> 305
<211> 378
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 58, 94, 132, 186, 191, 220, 240, 248, 280, 311, 332
<223> unknown base

<400> 305
gaccgaccgt tcagatgcc ggtccagta cggtctctg atttttggtg 50
ctgctgtntc tgtccttcta caggaggtgt tccgctttgc ctantacaag 100
ctgcttaaga aggcagatga ggggttagca tngctgagtg aggacggaag 150
atcaccatt tccatcggcc agatggccta tgtttntggt ntctctctcg 200
gtatcatcag tgggtgttttn tctgttatca atattttggn tgatgcantt 250
gggccaggtg tgggtgggat ccatggagan tcacctatt aattcctgaa 300
ttcagccttt ntgacagcag ccattatcct gntccatacc ttttggggag 350
ttgtgttttt tgatgcctgt gagaggag 378

<210> 306
<211> 655
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 1, 22, 129, 133, 184
<223> unknown base

<400> 306
ngttggagaa gtggcgcgga cnttcatttg gggtttcggt tccccccctt 50
tcccttccc cggggtcttg ggtgacattg caggggcccc tctgtgggtc 100
gcgttgccac ccacgcgga cccccagnt gngcgcctc tccatttgc 150
ctgtcctggt caggccccca ccccccttc cacntgacca gccatggggg 200
ctgcggtgtt ttctggctgc actttcgtcg cgttcggccc ggccttcgag 250

tttttcttga tcaactgtggc tggggaccgc cttcgcgtta tcatcctggt 300
 cgcaggggga tttttctgga tgggtocctt gctcctggcc tctgtggtct 350
 ggttcacatt ggtccatgtg accgaccggt cagatgcccg gctccagtac 400
 ggctcctga tttttggtgc tgcgtctctt gtcctcttac aggaggtgtt 450
 ccgctttgcc tactacaagc tgcttaagaa ggcagatgag ggggttagcat 500
 cgctgagtga ggacggaaga taccocatct ccatccgccca gatggcctat 550
 gtttctggtc tctccttcgg tatcatcagt ggtgtctctt ctgttatcaa 600
 tattttggct gatgcacttg ggcaggtgt ggttgggatc catggagact 650
 cacc 655

<210> 307
 <211> 650
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 52, 89, 128
 <223> unknown base

<400> 307
 gtaaaagaaa gtggccggac cttcattggg gtttcggttc cccctttcc 50
 cnttccccgg ggtctggggg tgacattgca ccgcgccent cgtggggtcg 100
 cgttgccacc ccacgcggac tcccagntg gcgcgccoct cccatttgcc 150
 tgtcctggtc agggcccccac cccctttccc acctgaccag coattgggggc 200
 tgcggtgttt ttcgggctgc actttcgtcg cgttcggggc cggccttcgc 250
 gcttttcttg atcactgttg ctggggaccg gcttcgcgtt atcatcctgg 300
 tcgcaggggc atttttcttg ctgggtctcc tgctcctggc ctctgtggtc 350
 tggttcatct tgggtccatg gaccgaccgg tcagatgccg ggctccagta 400
 cggcctcctg atttttggtg ctgctgtctc tgctcttcta caggaggtgt 450
 tccgctttgc ctactacaag ctgcttaaga aggcagatga ggggttagca 500
 tcgctgagtg aggacggaag atcaccatc tccatccgcc agatggccta 550
 tgtttctggt ctctccttcg gtatcatcag tgggtgtctt ctgttatca 600
 atattttggc tgatgcactt gggccaggtg tggttgggat ccatggagac 650

<210> 308
 <211> 1570
 <212> DNA
 <213> Homo sapiens

<400> 308
 gccccaggga gcagtgggtg gttataactc aggcccggtg ccagagccc 50

aggaggaggc agtggccagg aaggcacagg cctgagaagt ctgcggtga 100
 gctgggagca aatccccac cccctacctg ggggacaggg caagtgaagac 150
 ctggtgaggg tggctcagca ggcagggaag gagaggtgtc tgtgcgtcct 200
 gcacccacat ctttctctgt cccctccttg cctgtcttgg aggtgcttag 250
 actcctatct tctgaattct atagtgcctg ggtctcagcg cagtgcctag 300
 ggtggccctg cctgtgtgtt cctctctacc tggggaaata aggtgcacgg 350
 gccatggcta cagcaagacc cccctggatg tgggtgtctt gtgctctgat 400
 cacagccttg cttctggggg tcacagagca tgttctcgcc aacaatgatg 450
 tttctctgta ccacccctct aacaccgtgc cctctgggag caaccaggac 500
 ctggggagctg gggcggggga agacgcccgg tcggatgaca gcagcagccg 550
 catcatcaat ggatccgact gcgatatgca caccagccg tggcaggccg 600
 cgctgttgc aaggcccaac cagctctact gcggggcggt gttggtgcat 650
 ccacagtggc tgctcacggc cgccactgc aggaagaaag ttttcagagt 700
 cgtctcggc cactactccc tgtcaccagt ttatgaatct gggcagcaga 750
 tgttcagggg ggtcaaatcc atccccacc ctggtactc ccacctggc 800
 cactctaacg acctcatgct catcaaaactg aacagaagaa ttgctccac 850
 taaagatgct agaccatca acgtctctc tcattgtccc tctgctggga 900
 caaagtgtt ggtgtctggc tgggggacaa ccaagagccc ccaagtgcac 950
 ttccctaagg tcctccagt cttgaatata agcgtgctaa gtcagaaaaa 1000
 gtgcgaggat gcttaccoga gacagataga tgacaccatg ttctgcgccg 1050
 gtgacaaaag aggtagagac tcctgccagg gtgattctgg ggggcctgtg 1100
 gtctgcaatg gctccctgca gggactcgtg tcctggggag attacccttg 1150
 tgcccgcccc aacagaccgg gtgtctacac gaacctctgc aagtccacca 1200
 agtggatcca ggaaccatc caggccaact cctgagtcac ccaggactc 1250
 agcacaccgg catccccacc tgctgcaggg acagccctga cactccttc 1300
 agaccctcat tccttccag agatgttgag aatgttcac tcctcagccc 1350
 ctgaccccat gtctcctgga ctcagggtct gcttcccca cattgggctg 1400
 accgtgtctc tctagttaa ccctgggaac aatttccaaa actgtccagg 1450
 gcgggggttg cgtctcaatc tcctggggc actttcatcc tcaagctcag 1500
 ggcccatccc ttctctgag ctctgaacca aatttagtcc cagaaaaaaa 1550
 ctgagaagtg gaaaaaaaaa 1570

<210> 309

<211> 293
 <212> PRT
 <213> Homo sapiens

<400> 309

Met	Ala	Thr	Ala	Arg	Pro	Pro	Trp	Met	Trp	Val	Leu	Cys	Ala	Leu	1	5	10	15
Ile	Thr	Ala	Leu	Leu	Leu	Gly	Val	Thr	Glu	His	Val	Leu	Ala	Asn	20	25	30	
Asn	Asp	Val	Ser	Cys	Asp	His	Pro	Ser	Asn	Thr	Val	Pro	Ser	Gly	35	40	45	
Ser	Asn	Gln	Asp	Leu	Gly	Ala	Gly	Ala	Gly	Glu	Asp	Ala	Arg	Ser	50	55	60	
Asp	Asp	Ser	Ser	Ser	Arg	Ile	Ile	Asn	Gly	Ser	Asp	Cys	Asp	Met	65	70	75	
His	Thr	Gln	Pro	Trp	Gln	Ala	Ala	Leu	Leu	Leu	Arg	Pro	Asn	Gln	80	85	90	
Leu	Tyr	Cys	Gly	Ala	Val	Leu	Val	His	Pro	Gln	Trp	Leu	Leu	Thr	95	100	105	
Ala	Ala	His	Cys	Arg	Lys	Lys	Val	Phe	Arg	Val	Arg	Leu	Gly	His	110	115	120	
Tyr	Ser	Leu	Ser	Pro	Val	Tyr	Glu	Ser	Gly	Gln	Gln	Met	Phe	Gln	125	130	135	
Gly	Val	Lys	Ser	Ile	Pro	His	Pro	Gly	Tyr	Ser	His	Pro	Gly	His	140	145	150	
Ser	Asn	Asp	Leu	Met	Leu	Ile	Lys	Leu	Asn	Arg	Arg	Ile	Arg	Pro	155	160	165	
Thr	Lys	Asp	Val	Arg	Pro	Ile	Asn	Val	Ser	Ser	His	Cys	Pro	Ser	170	175	180	
Ala	Gly	Thr	Lys	Cys	Leu	Val	Ser	Gly	Trp	Gly	Thr	Thr	Lys	Ser	185	190	195	
Pro	Gln	Val	His	Phe	Pro	Lys	Val	Leu	Gln	Cys	Leu	Asn	Ile	Ser	200	205	210	
Val	Leu	Ser	Gln	Lys	Arg	Cys	Glu	Asp	Ala	Tyr	Pro	Arg	Gln	Ile	215	220	225	
Asp	Asp	Thr	Met	Phe	Cys	Ala	Gly	Asp	Lys	Ala	Gly	Arg	Asp	Ser	230	235	240	
Cys	Gln	Gly	Asp	Ser	Gly	Gly	Pro	Val	Val	Cys	Asn	Gly	Ser	Leu	245	250	255	
Gln	Gly	Leu	Val	Ser	Trp	Gly	Asp	Tyr	Pro	Cys	Ala	Arg	Pro	Asn	260	265	270	
Arg	Pro	Gly	Val	Tyr	Thr	Asn	Leu	Cys	Lys	Phe	Thr	Lys	Trp	Ile	275	280	285	
Gln	Glu	Thr	Ile	Gln	Ala	Asn	Ser											

<210> 310
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 310
 tcctgtgacc acccctctaa cacc 24

<210> 311
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 311
 ctggaacatc tgotgccag attc 24

<210> 312
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 312
 gtcggatgac agcagcagcc gcatcatcaa tggatccgac tgcgatatgc 50

<210> 313
 <211> 3010
 <212> DNA
 <213> Homo sapiens

<400> 313
 atggtcaacg accggtgaa gaccatgggc ggcgctgccc aacttgagga 50
 ccggccgcgc gacaagccgc agcggccgag ctgcggctac gtgctgtgca 100
 ccgtgtgtgt ggcctgtggt gtgctgtgtg ctgtagctgt caccggtgcc 150
 gtgtcttttc tgaaccaacgc ccacgcgcgc gccacggcgc cccacactgt 200
 cgtcagcact gggggtgcca gcgccaacag cgcctgtgtc actgtggaaa 250
 gggcgacag ctgcacctc agcatcctca ttgacccgcg ctgcccgcag 300
 ctacaccgaca gcttcgcacg cctggagagc gccaggcct cgggtgtgca 350
 ggcgctgaca gagcaccagg cccagccacg gctggtgggc gaccaggagc 400
 aggagctgct ggacacgctg gccgaccagc tgcccgcggt gctggcccga 450
 gcctcagagc tgcagacgga gtgcattggg ctgcggaagg ggcattggac 500
 gctggggcag ggcctcagcg ccctgcagag tgagcagggc cgcctcatcc 550

agcttctctc tgagagccag ggccacatgg ctacactggt gaactccgtc 600
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 caacaaggcc gaccttcaga gagcgctgc cgggggaacc cggccccggg 700
 gctgtgccac tggctcccgg ccccgagact gtctggacgt cctcctaagc 750
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 cattatgggg acagagagca gggggcagac agcaccctg gagtctctct 1800
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 gggagaggcc gtgtgacctg gctctctgtc ccagtccac caggtcatcc 3000
 acatgcgcag 3010

<210> 314
 <211> 461
 <212> PRT
 <213> Homo sapiens

<400> 314
 Met Val Asn Asp Arg Trp Lys Thr Met Gly Gly Ala Ala Gln Leu
 1 5 10 15
 Glu Asp Arg Pro Arg Asp Lys Pro Gln Arg Pro Ser Cys Gly Tyr
 20 25 30
 Val Leu Cys Thr Val Leu Leu Ala Leu Ala Val Leu Leu Ala Val
 35 40 45
 Ala Val Thr Gly Ala Val Leu Phe Leu Asn His Ala His Ala Pro
 50 55 60
 Gly Thr Ala Pro Pro Pro Val Val Ser Thr Gly Ala Ala Ser Ala
 65 70 75
 Asn Ser Ala Leu Val Thr Val Glu Arg Ala Asp Ser Ser His Leu
 80 85 90
 Ser Ile Leu Ile Asp Pro Arg Cys Pro Asp Leu Thr Asp Ser Phe
 95 100 105

Ala Arg Leu Glu Ser	Ala Gln Ala Ser	Val Leu Gln Ala Leu Thr
110		115 120
Glu His Gln Ala Gln	Pro Arg Leu Val	Gly Asp Gln Glu Gln Glu
125		130 135
Leu Leu Asp Thr	Leu Ala Asp Gln Leu	Pro Arg Leu Leu Ala Arg
140		145 150
Ala Ser Glu Leu Gln	Thr Glu Cys Met	Gly Leu Arg Lys Gly His
155		160 165
Gly Thr Leu Gly Gln	Gly Leu Ser Ala	Leu Gln Ser Glu Gln Gly
170		175 180
Arg Leu Ile Gln	Leu Leu Ser Glu Ser	Gln Gly His Met Ala His
185		190 195
Leu Val Asn Ser	Val Ser Asp Ile Leu	Asp Ala Leu Gln Arg Asp
200		205 210
Arg Gly Leu Gly Arg	Pro Arg Asn Lys	Ala Asp Leu Gln Arg Ala
215		220 225
Pro Ala Arg Gly Thr	Arg Pro Arg Gly Cys	Ala Thr Gly Ser Arg
230		235 240
Pro Arg Asp Cys	Leu Asp Val Leu Leu	Ser Gly Gln Gln Asp Asp
245		250 255
Gly Val Tyr Ser	Val Phe Pro Thr His	Tyr Pro Ala Gly Phe Gln
260		265 270
Val Tyr Cys Asp	Met Arg Thr Asp Gly	Gly Gly Trp Thr Val Phe
275		280 285
Gln Arg Arg Glu Asp	Gly Ser Val Asn Phe	Phe Arg Gly Trp Asp
290		295 300
Ala Tyr Arg Asp	Gly Phe Gly Arg Leu	Thr Gly Glu His Trp Leu
305		310 315
Gly Leu Lys Arg	Ile His Ala Leu Thr	Thr Gln Ala Ala Tyr Glu
320		325 330
Leu His Val Asp	Leu Glu Asp Phe Glu	Asn Gly Thr Ala Tyr Ala
335		340 345
Arg Tyr Gly Ser	Phe Gly Val Gly Leu	Phe Ser Val Asp Pro Glu
350		355 360
Glu Asp Gly Tyr	Pro Leu Thr Val Ala	Asp Tyr Ser Gly Thr Ala
365		370 375
Gly Asp Ser Leu	Leu Lys His Ser Gly	Met Arg Phe Thr Thr Lys
380		385 390
Asp Arg Asp Ser	Asp His Ser Glu Asn	Asn Cys Ala Ala Phe Tyr
395		400 405
Arg Gly Ala Trp	Trp Tyr Arg Asn Cys	His Thr Ser Asn Leu Asn
410		415 420

Gly Gln Tyr Leu Arg Gly Ala His Ala Ser Tyr Ala Asp Gly Val
 425 430 435
 Glu Trp Ser Ser Trp Thr Gly Trp Gln Tyr Ser Leu Lys Phe Ser
 440 445 450
 Glu Met Lys Ile Arg Pro Val Arg Glu Asp Arg
 455 460

<210> 315
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 315
 cacacgtoca acctcaatgg gcag 24

<210> 316
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 316
 gaccagcagg gccaggaca agg 23

<210> 317
 <211> 44
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 317
 gttctctgag atgaagatcc gcccggtccg ggagtaccgc ttag 44

<210> 318
 <211> 1841
 <212> DNA
 <213> Homo sapiens

<400> 318
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 ctttttagtgc cttgcttcct gaactagctc acagtagccc ggcggcccag 100
 ggcaatccga ccacatttca ctctcaccgc tgtaggaatc cagatgcagg 150
 ccaagtacag cagcagcagg gacatgctgg atgatgatgg ggacaccacc 200
 atgagcctgc attctcaagc ctctgccaca actcggcatc cagagccccg 250
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 cttttgtttt ttacgtacta ccagctctcc aatactggtc aagacacat 400

ttctcaaatg gaagaaagat taggaaatag gtcceaagag ttgcaatctc 450
 ttcaagtcca gaataataag cttgcaggaa gtctgcagca tgtggctgaa 500
 aaactctgtc gtgagctgta taacaaagct ggagcacaca ggtgcagccc 550
 ttgtacagaa caatggaat ggcatggaga caattgtctac cagtctcata 600
 aagacagcaa aagttgggag gactgtaaat atttctgcct tagtgaaaaa 650
 tctaccatgc tgaagataaa caaacaagaa gacctggaat ttgccgcgtc 700
 tcagagctac tctgagtttt tctactctta ttggacaggg cttttgcgcc 750
 ctgacagtgg caaggcctgg ctgtggatgg atggaacccc ttctactctt 800
 gaactgttcc atattataat agatgtcacc agcccaagaa gcagagactg 850
 tgtggccatc ctcaatggga tgatcttctc aaaggactgc aaagaattga 900
 agcgttgtgt ctgtgagaga agggcaggaa tggatgaagcc agagagcctc 950
 catgtccccc ctgaaacatt aggcgaaggt gactgattcg cctctgcaa 1000
 ctacaaatag cagagtgcag caggcgggtc caaagcaagg gctagttag 1050
 acattgggaa atggaacata atcaggaaag actatctctc tgactagtac 1100
 aaaatggggt ctctgttttc ctgttcagga tcaccagcat ttctgagctt 1150
 ggggttatgc acgtatttaa cagtcacaag aagtcttatt tacatgccac 1200
 caaccaacct cagaaacca taatgtcatc tgccctcttg gcttagagat 1250
 aacttttagc tctctttctt ctcaatgtct aatatccct cctgttttct 1300
 atgtcttctt tacacttggt ggaataagaa actttttgaa gtgagggaaa 1350
 tacattgagg taacatcctt ttctctgaca gtcaagtagt ccatcagaaa 1400
 ttggcagtc cttccagat tgtaccagca aatacacaag gaattctttt 1450
 tgtttgttct agttcatact agtcccttcc caatccatca gtaaagaccc 1500
 catctgcctt gtccatgccg ttcccaaca gggatgtcac ttgatattag 1550
 aatctcaaat ctcaatgcct tataagcatt ccttcctgtg tcoattaaga 1600
 ctctgataat tgtctccctt ccataggaat ttctcccagg aaagaaatat 1650
 atcccatct cgtttcata tcagaactac cgtccccgat atcccttca 1700
 gagagattaa agaccagaaa aaagtgcagc tctcatctg cactgttaat 1750
 agtttcagtt cctattttct tcattgacc catattata cctttcaggt 1800
 actgaagatt taataataat aaatgtaaat actgtgaaaa a 1841

<210> 319
 <211> 280
 <212> PRT
 <213> Homo sapiens

<400> 319

Met	Gln	Ala	Lys	Tyr	Ser	Ser	Thr	Arg	Asp	Met	Leu	Asp	Asp	Asp	1	5	10	15
Gly	Asp	Thr	Thr	Met	Ser	Leu	His	Ser	Gln	Ala	Ser	Ala	Thr	Thr	20	25	30	
Arg	His	Pro	Glu	Pro	Arg	Arg	Thr	Glu	His	Arg	Ala	Pro	Ser	Ser	35	40	45	
Thr	Trp	Arg	Pro	Val	Ala	Leu	Thr	Leu	Leu	Thr	Leu	Cys	Leu	Val	50	55	60	
Leu	Leu	Ile	Gly	Leu	Ala	Ala	Leu	Gly	Leu	Leu	Phe	Phe	Gln	Tyr	65	70	75	
Tyr	Gln	Leu	Ser	Asn	Thr	Gly	Gln	Asp	Thr	Ile	Ser	Gln	Met	Glu	80	85	90	
Glu	Arg	Leu	Gly	Asn	Thr	Ser	Gln	Glu	Leu	Gln	Ser	Leu	Gln	Val	95	100	105	
Gln	Asn	Ile	Lys	Leu	Ala	Gly	Ser	Leu	Gln	His	Val	Ala	Glu	Lys	110	115	120	
Leu	Cys	Arg	Glu	Leu	Tyr	Asn	Lys	Ala	Gly	Ala	His	Arg	Cys	Ser	125	130	135	
Pro	Cys	Thr	Glu	Gln	Trp	Lys	Trp	His	Gly	Asp	Asn	Cys	Tyr	Gln	140	145	150	
Phe	Tyr	Lys	Asp	Ser	Lys	Ser	Trp	Glu	Asp	Cys	Lys	Tyr	Phe	Cys	155	160	165	
Leu	Ser	Glu	Asn	Ser	Thr	Met	Leu	Lys	Ile	Asn	Lys	Gln	Glu	Asp	170	175	180	
Leu	Glu	Phe	Ala	Ala	Ser	Gln	Ser	Tyr	Ser	Glu	Phe	Phe	Tyr	Ser	185	190	195	
Tyr	Trp	Thr	Gly	Leu	Leu	Arg	Pro	Asp	Ser	Gly	Lys	Ala	Trp	Leu	200	205	210	
Trp	Met	Asp	Gly	Thr	Pro	Phe	Thr	Ser	Glu	Leu	Phe	His	Ile	Ile	215	220	225	
Ile	Asp	Val	Thr	Ser	Pro	Arg	Ser	Arg	Asp	Cys	Val	Ala	Ile	Leu	230	235	240	
Asn	Gly	Met	Ile	Phe	Ser	Lys	Asp	Cys	Lys	Glu	Leu	Lys	Arg	Cys	245	250	255	
Val	Cys	Glu	Arg	Arg	Ala	Gly	Met	Val	Lys	Pro	Glu	Ser	Leu	His	260	265	270	
Val	Pro	Pro	Glu	Thr	Leu	Gly	Glu	Gly	Asp	275	280							

<210> 320

<211> 468

<212> DNA

<213> Homo sapiens

<220>
 <221> unsure
 <222> 59, 95, 149, 331, 364, 438, 446
 <223> unknown base

<400> 320
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 gggacatgnt ggatgatgat gggacaccac catgagcctg cattntcaag 100
 cttttgccac aattcggcat ccagagccccc ggcgcacaga gcacagggnt 150
 cctttttcaa cgtggcgacc agtggccctg accctgctga ctttgtgctt 200
 ggtgctgctg atagggtctg cagccctggg gcttttgttt tttcagtact 250
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 ttaggaaata cgtcccaaga gttgcaattt nttcaagtcc agaataataa 350
 gcttgcagga agtntgcagc atgtggctga aaaactctgt cgtgagctgt 400
 ataacaaagc tggaggaact ttgaaggagg gcaaagtntc ctcantact 450
 atacacacac cacttccc 468

<210> 321
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 321
 atgcaggcca agtacagcag cac 23

<210> 322
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 322
 catgctgacg acttctctga agc 23

<210> 323
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 323
 ccacacagtc tctgcttctt ggg 23

<210> 324
 <211> 40
 <212> DNA
 <213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 324
atgctggatg atgatgggga caccacatg agcctgcatt 40

<210> 325
<211> 2988
<212> DNA
<213> Homo sapiens

<400> 325
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gagggagcgg gcccgcccgc ggggcccgag ccctccggat cggccccctc 150
cccggtcccg cccctcggga gaetccctctg gctgctctgg ggttgcgcg 200
gggcccggga cccgcggtcc gggcgccatg cgggcatcgc tgcctgctgc 250
ggtgctgcgg cccgcagggc ccgtggccgt gggcatctcc ctgggcttca 300
ccctgagcct gctcagcgtc acctgggtgg aggagccgtg cggcccaggc 350
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ggcgcgccgg cccaactcgg tgcagcccgg agcggagcgc gagaagcccg 450
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caccctgcac agcccggccca ggccgccaaa aaggccgtca ggaccgceta 550
catcagcagc gagctgggca tcaggcagag gctgctgggt gcggtgctga 600
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gagctgagga gggggcatct cccaacttct cccttttggg cctgtccgaa 2950

gtccctgccc tttataaac tggccaagtg tggaaaaa 2988

<210> 326

<211> 775

<212> PRT

<213> Homo sapiens

<400> 326

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Val Ala Val Gly Ile Ser Leu Gly Phe Thr Leu Ser Leu Leu Ser
20 25 30

Val Thr Trp Val Glu Pro Cys Gly Pro Gly Pro Pro Gln Pro
35 40 45

Gly Asp Ser Glu Leu Pro Pro Arg Gly Asn Thr Asn Ala Ala Arg
50 55 60

Arg Pro Asn Ser Val Gln Pro Gly Ala Glu Arg Glu Lys Pro Gly
65 70 75

Ala Gly Glu Gly Ala Gly Glu Asn Trp Glu Pro Arg Val Leu Pro
80 85 90

Tyr His Pro Ala Gln Pro Gly Gln Ala Ala Lys Lys Ala Val Arg
95 100 105

Thr Arg Tyr Ile Ser Thr Glu Leu Gly Ile Arg Gln Arg Leu Leu
110 115 120

Val Ala Val Leu Thr Ser Gln Thr Thr Leu Pro Thr Leu Gly Val
125 130 135

Ala Val Asn Arg Thr Leu Gly His Arg Leu Glu Arg Val Val Phe
140 145 150

Leu Thr Gly Ala Arg Gly Arg Arg Ala Pro Pro Gly Met Ala Val
155 160 165

Val Thr Leu Gly Glu Glu Arg Pro Ile Gly His Leu His Leu Ala
170 175 180

Leu Arg His Leu Leu Glu Gln His Gly Asp Asp Phe Asp Trp Phe
185 190 195

Phe Leu Val Pro Asp Thr Thr Tyr Thr Glu Ala His Gly Leu Ala
200 205 210

Arg Leu Thr Gly His Leu Ser Leu Ala Ser Ala Ala His Leu Tyr
215 220 225

Leu Gly Arg Pro Gln Asp Phe Ile Gly Gly Glu Pro Thr Pro Gly
230 235 240

Arg Tyr Cys His Gly Gly Phe Gly Val Leu Ser Arg Met Leu
245 250 255

Leu Gln Gln Leu Arg Pro His Leu Glu Gly Cys Arg Asn Asp Ile
260 265 270

Val Ser Ala Arg	Pro Asp Glu Trp Leu	Gly Arg Cys Ile Leu	Asp
275		280	285
Ala Thr Gly Val	Gly Cys Thr Gly Asp	His Glu Gly Val His	Tyr
290		295	300
Ser His Leu Glu	Leu Ser Pro Gly Glu	Pro Val Gln Glu Gly	Asp
305		310	315
Pro His Phe Arg	Ser Ala Leu Thr Ala	His Pro Val Arg Asp	Pro
320		325	330
Val His Met Tyr	Gln Leu His Lys Ala	Phe Ala Arg Ala Glu	Leu
335		340	345
Glu Arg Thr Tyr	Gln Glu Ile Gln Glu	Leu Gln Trp Glu Ile	Gln
350		355	360
Asn Thr Ser His	Leu Ala Val Asp Gly	Asp Arg Ala Ala Ala	Trp
365		370	375
Pro Val Gly Ile	Pro Ala Pro Ser Arg	Pro Ala Ser Arg Phe	Glu
380		385	390
Val Leu Arg Trp	Asp Tyr Phe Thr Glu	Gln His Ala Phe Ser	Cys
395		400	405
Ala Asp Gly Ser	Pro Arg Cys Pro Leu	Arg Gly Ala Asp Arg	Ala
410		415	420
Asp Val Ala Asp	Val Leu Gly Thr Ala	Leu Glu Glu Leu Asn	Arg
425		430	435
Arg Tyr His Pro	Ala Leu Arg Leu Gln	Lys Gln Gln Leu Val	Asn
440		445	450
Gly Tyr Arg Arg	Phe Asp Pro Ala Arg	Gly Met Glu Tyr Thr	Leu
455		460	465
Asp Leu Gln Leu	Glu Ala Leu Thr Pro	Gln Gly Gly Arg Arg	Pro
470		475	480
Leu Thr Arg Arg	Val Gln Leu Leu Arg	Pro Leu Ser Arg Val	Glu
485		490	495
Ile Leu Pro Val	Pro Tyr Val Thr Glu	Ala Ser Arg Leu Thr	Val
500		505	510
Leu Leu Pro Leu	Ala Ala Ala Glu Arg	Asp Leu Ala Pro Gly	Phe
515		520	525
Leu Glu Ala Phe	Ala Thr Ala Ala Leu	Glu Pro Gly Asp Ala	Ala
530		535	540
Ala Ala Leu Thr	Leu Leu Leu Tyr	Glu Pro Arg Gln Ala	Gln
545		550	555
Arg Val Ala His	Ala Asp Val Phe Ala	Pro Val Lys Ala His	Val
560		565	570
Ala Glu Leu Glu	Arg Arg Phe Pro Gly	Ala Arg Val Pro Trp	Leu
575		580	585

Ser Val Gln Thr	Ala Ala Pro Ser Pro	Leu Arg Leu Met Asp Leu	590	595	600
Leu Ser Lys Lys	His Pro Leu Asp Thr	Leu Phe Leu Leu Ala Gly	605	610	615
Pro Asp Thr Val	Leu Thr Pro Asp Phe	Leu Asn Arg Cys Arg Met	620	625	630
His Ala Ile Ser	Gly Trp Gln Ala Phe	Phe Pro Met His Phe Gln	635	640	645
Ala Phe His Pro	Gly Val Ala Pro Pro	Gln Gly Pro Gly Pro Pro	650	655	660
Glu Leu Gly Arg	Asp Thr Gly Arg Phe	Asp Arg Gln Ala Ala Ser	665	670	675
Glu Ala Cys Phe	Tyr Asn Ser Asp Tyr	Val Ala Ala Arg Gly Arg	680	685	690
Leu Ala Ala Ala	Ser Glu Gln Glu Glu	Glu Leu Leu Glu Ser Leu	695	700	705
Asp Val Tyr Glu	Leu Phe Leu His Phe	Ser Ser Leu His Val Leu	710	715	720
Arg Ala Val Glu	Pro Ala Leu Leu Gln	Arg Tyr Arg Ala Gln Thr	725	730	735
Cys Ser Ala Arg	Leu Ser Glu Asp Leu	Tyr His Arg Cys Leu Gln	740	745	750
Ser Val Leu Glu	Gly Leu Gly Ser Arg	Thr Gln Leu Ala Met Leu	755	760	765
Leu Phe Glu Gln	Glu Gln Gly Asn Ser Thr		770	775	

<210> 327

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 327

tggaaggctg ccgcaacgac aatc 24

<210> 328

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 328

ctgatgtggc cgatgttctg 20

<210> 329

<211> 20

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 329
 atggctcagt gtgcagacag 20

 <210> 330
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 330
 gcattgctgct ccgtgaagta gtcc 24

 <210> 331
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 331
 atgcattggga aagaaggcct gcc 24

 <210> 332
 <211> 47
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 332
 tgcattggtg accacgaggg ggtgcactat agccattctgg agctgag 47

 <210> 333
 <211> 1095
 <212> DNA
 <213> Homo sapiens

 <400> 333
 gctctggccg gccccggcga ttggtcaccg cccgctaggg gacagccctg 50
 gcctcctctg attggcaagc gctggccacc tccccacacc ccttgogaac 100
 gctcccctag tggagaaaag gattagctat tagccaattc gccagggccc 150
 gctttttaga agcttgattt cctttgaaga tgaagacta gcggaagctc 200
 tgcctctttc ccagtgggc gagggaaactc ggggcgattg gctgggaact 250
 gtatccacc aaatgtcacc gattttcttc tatgcaggaa atgagcagac 300
 ccatcaataa gaaatttctc agcctggccg aaaatggttg gccccacgaa 350
 gccacgacaa ctggaggcaa agaggggttg tcaacgcccc gcctcattgg 400

aaaaacaaat cagatctggg acctatatag cgtggcggag gcggggcgat 450
 gattgtcgcg ctgcaccca ctgcagctgc gcacagtcgc atttcttcc 500
 ccgccccga gaccctgcag caccatctgt catggcggct gggctgttg 550
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 tgacctcttc tcagagcacc taattaaag ggctgaaagt ctgaa 1095

<210> 334

<211> 153

<212> PRT

<213> Homo sapiens

<400> 334

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Ala	Ala	Ala	Thr	Arg	Gly	Leu	Pro	Ala	Ala	Arg	Val	Arg	Trp	Glu
			20						25					30
Ser	Ser	Phe	Ser	Arg	Thr	Val	Val	Ala	Pro	Ser	Ala	Val	Ala	Gly
			35						40					45
Lys	Arg	Pro	Pro	Glu	Pro	Thr	Thr	Pro	Trp	Gln	Glu	Asp	Pro	Glu
			50						55					60
Pro	Glu	Asp	Glu	Asn	Leu	Tyr	Glu	Lys	Asn	Pro	Asp	Ser	His	Gly
			65						70					75
Tyr	Asp	Lys	Asp	Pro	Val	Leu	Asp	Val	Trp	Asn	Met	Arg	Leu	Val
			80						85					90
Phe	Phe	Phe	Gly	Val	Ser	Ile	Ile	Leu	Val	Leu	Gly	Ser	Thr	Phe
			95						100					105
Val	Ala	Tyr	Leu	Pro	Asp	Tyr	Arg	Met	Lys	Glu	Trp	Ser	Arg	Arg
			110						115					120
Glu	Ala	Glu	Arg	Leu	Val	Lys	Tyr	Arg	Glu	Ala	Asn	Gly	Leu	Pro
			125						130					135
Ile	Met	Glu	Ser	Asn	Cys	Phe	Asp	Pro	Ser	Lys	Ile	Gln	Leu	Pro
			140						145					150

Glu Asp Glu

<210> 335

<211> 442

<212> DNA

<213> Homo sapiens

<400> 335

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aggactgtgg tcgccccgtc cgctgtggcg ggaaagcggc cccagaacc 150
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agaagaaccc agactcccat ggttatgaca aggaccccg tttggacgtc 250
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tggcagcacc tttgtggcct atctgcctga ctacaggatg aaagagtgg 350
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<210> 336

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 336

ctgagaccct gcagcaccat ctg 23

<210> 337

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 337

ggtgcttctt gagccccact tagc 24

<210> 338

<211> 40

<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

<400> 338

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<210> 339

<211> 2162

<212> DNA

<213> Homo sapiens

<400> 339

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acgcgctggg attcggagct tcagcgggaa ggagtgtccc attacaggct 200
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tgacactgtc attcacaca ggcttttgga ggaccgata ctggggggcca 300
cccttctctgc agggcccatc aggtgcagag ctgtgggtct ggttccaaga 350
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cagggatctt ctgcgcctct ctcaacttca tcgactccac caacacagtc 450
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tgccacttgc tctctcaga gttggctttt gaaccaaagt gcctggacc 1850
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ggccacctct atattgaggt gctcaataag caaaagtggc cggtggctgc 2000
tgtattggac agcacagaaa aagatttcca tcaccacaga aagtcggct 2050
ggcagcactg gccaaagtga tggggtgtgc tacacagtgt atgtcactgt 2100
gtagtggatg gagtttactg tttgtggaat aaaaacggct gtttccgtg 2150
aaaaaaaa aa 2162

<210> 340

<211> 574

<212> PRT

<213> Homo sapiens

<400> 340

Met	Pro	Leu	Ala	Leu	Leu	Val	Leu	Leu	Leu	Gly	Pro	Gly	Gly	1	5	10	15
Trp	Cys	Leu	Ala	Glu	Pro	Pro	Arg	Asp	Ser	Leu	Arg	Glu	Glu	20	25	30	35
Val	Ile	Thr	Pro	Leu	Pro	Ser	Gly	Asp	Val	Ala	Ala	Thr	Phe	35	40	45	50
Phe	Arg	Thr	Arg	Trp	Asp	Ser	Glu	Leu	Gln	Arg	Glu	Gly	Val	50	55	60	65
His	Tyr	Arg	Leu	Phe	Pro	Lys	Ala	Leu	Gly	Gln	Leu	Ile	Ser	65	70	75	80
Tyr	Ser	Leu	Arg	Glu	Leu	His	Leu	Ser	Phe	Thr	Gln	Gly	Phe	80	85	90	95
Arg	Thr	Arg	Tyr	Trp	Gly	Pro	Pro	Phe	Leu	Gln	Ala	Pro	Ser	95	100	105	110
Ala	Glu	Leu	Trp	Val	Trp	Phe	Gln	Asp	Thr	Val	Thr	Asp	Val	110	115	120	125
Lys	Ser	Trp	Lys	Glu	Leu	Ser	Asn	Val	Leu	Ser	Gly	Ile	Phe	125	130	135	140
Ala	Ser	Leu	Asn	Phe	Ile	Asp	Ser	Thr	Asn	Thr	Val	Thr	Pro	140	145	150	155

Ala Ser Phe Lys	Pro Leu Gly Leu Ala	Asn Asp Thr Asp His Tyr	155	160	165
Phe Leu Arg Tyr	Ala Val Leu Pro Arg	Glu Val Val Cys Thr Glu	170	175	180
Asn Leu Thr Pro	Trp Lys Lys Leu Leu	Pro Cys Ser Ser Lys Ala	185	190	195
Gly Leu Ser Val	Leu Leu Lys Ala Asp	Arg Leu Phe His Thr Ser	200	205	210
Tyr His Ser Gln	Ala Val His Ile Arg	Pro Val Cys Arg Asn Ala	215	220	225
Arg Cys Thr Ser	Ile Ser Trp Glu Leu	Arg Gln Thr Leu Ser Val	230	235	240
Val Phe Asp Ala	Phe Ile Thr Gly Gln	Gly Lys Lys Asp Trp Ser	245	250	255
Leu Phe Arg Met	Phe Ser Arg Thr Leu	Thr Glu Pro Cys Pro Leu	260	265	270
Ala Ser Glu Ser	Arg Val Tyr Val Asp	Ile Thr Thr Tyr Asn Gln	275	280	285
Asp Asn Glu Thr	Leu Glu Val His Pro	Pro Thr Thr Thr Tyr	290	295	300
Gln Asp Val Ile	Leu Gly Thr Arg Lys	Thr Tyr Ala Ile Tyr Asp	305	310	315
Leu Leu Asp Thr	Ala Met Ile Asn Asn	Ser Arg Asn Leu Asn Ile	320	325	330
Gln Leu Lys Trp	Lys Arg Pro Pro Glu	Asn Glu Ala Pro Pro Val	335	340	345
Pro Phe Leu His	Ala Gln Arg Tyr Val	Ser Gly Tyr Gly Leu Gln	350	355	360
Lys Gly Glu Leu	Ser Thr Leu Leu Tyr	Asn Thr His Pro Tyr Arg	365	370	375
Ala Phe Pro Val	Leu Leu Leu Asp Thr	Val Pro Trp Tyr Leu Arg	380	385	390
Leu Tyr Val His	Thr Leu Thr Ile Thr	Ser Lys Gly Lys Glu Asn	395	400	405
Lys Pro Ser Tyr	Ile His Tyr Gln Pro	Ala Gln Asp Arg Leu Gln	410	415	420
Pro His Leu Leu	Glu Met Leu Ile Gln	Leu Pro Ala Asn Ser Val	425	430	435
Thr Lys Val Ser	Ile Gln Phe Glu Arg	Ala Leu Leu Lys Trp Thr	440	445	450
Glu Tyr Thr Pro	Asp Pro Asn His Gly	Phe Tyr Val Ser Pro Ser	455	460	465

Val Leu Ser Ala	Leu Val Pro Ser Met	Val Ala Ala Lys Pro Val
470		475 480
Asp Trp Glu Glu	Ser Pro Leu Phe Asn Ser	Leu Phe Pro Val Ser
485		490 495
Asp Gly Ser Asn	Tyr Phe Val Arg Leu Tyr	Thr Glu Pro Leu Leu
500		505 510
Val Asn Leu Pro	Thr Pro Asp Phe Ser Met	Pro Tyr Asn Val Ile
515		520 525
Cys Leu Thr Cys	Thr Val Val Ala Val Cys	Tyr Gly Ser Phe Tyr
530		535 540
Asn Leu Leu Thr	Arg Thr Phe His Ile Glu	Glu Pro Arg Thr Gly
545		550 555
Gly Leu Ala Lys	Arg Leu Ala Asn Leu Ile	Arg Arg Ala Arg Gly
560		565 570
Val Pro Pro Leu		

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<210> 341
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 341
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<210> 342
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<221> Artificial Sequence
<222> 1-24
<223> Synthetic oligonucleotide probe

<400> 342
    ccaactctga ggagagcaag tggc 24

<210> 343
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 343
    tgtatgtgca caccctcacc atcacctcca agggcaagga gaac 44

<210> 344
<211> 762
<212> DNA
<213> Homo sapiens

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<400> 344
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 gtttggccag ctgacaacgt acgctgcttc aagtcggatc ctccccagtg 150
 tcacacagac caggactgtc tgggggaaaag gaagtgttgt tacctgcact 200
 gtgggttcaa gtgtgtgatt cctgtgaagg aactggaaga aggaggaaca 250
 aaggatgaag atgtgtcaag gccataccct gagccaggat gggaggccaa 300
 gtgtccaggc tctctctcta ccagggtgcc tcagaaatga tgcgtggctc 350
 tttctacctc tgggggtcac tctcacttgg cacctgcccc tgagggtcct 400
 gagacttga atattggaaga agcaataccc aaccccacca aagaaaacct 450
 gagcttgaag tctcttttccc caaaaagagg gaagagtcac aaaaagtcca 500
 gaccccgagg acggtacttt cctctctac ctggtgctcc tccctaagtc 550
 tcatgaatgg acccctcatg aatgaaacca gtgcccttat aagagacccc 600
 aaagagctgc cttgcccttc tgcaatgtgt gatcacagct agaaggcact 650
 gtcagagaag agaaactggt cctcaccaga tgctgaatct gctggtgcct 700
 tgcatttga cttcccagcc tctagaactg taagaaataa atatttgctg 750
 tttataatcc aa 762

<210> 345
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 345
 Met Gly Ser Ser Phe Leu Val Leu Met Val Ser Leu Val Leu
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 Val Thr Leu Val Ala Val Glu Gly Val Lys Glu Gly Ile Glu Lys
 20 25 30
 Ala Gly Val Cys Pro Ala Asp Asn Val Arg Cys Phe Lys Ser Asp
 35 40 45
 Pro Pro Gln Cys His Thr Asp Gln Asp Cys Leu Gly Glu Arg Lys
 50 55 60
 Cys Cys Tyr Leu His Cys Gly Phe Lys Cys Val Ile Pro Val Lys
 65 70 75
 Glu Leu Glu Glu Gly Gly Asn Lys Asp Glu Asp Val Ser Arg Pro
 80 85 90
 Tyr Pro Glu Pro Gly Trp Glu Ala Lys Cys Pro Gly Ser Ser Ser
 95 100 105
 Thr Arg Cys Pro Gln Lys
 110

<210> 346
 <211> 2528
 <212> DNA
 <213> Homo sapiens

<400> 346
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 gccccaggac atgcagaacc ttctctetaga acccgaccca ccaccatgag 150
 gtctctgctg tggagatgca ggcacctgag ccaaggcgctc cagtggctct 200
 tgcttctggc tgctctggtc ttcttttctc tgccttgcc ctcttttatt 250
 aaggagcctc aaacaaagcc ttccaggcat caacgcacag agaacattaa 300
 agaaaggtct ctacagtccc tggcaaagcc taagtcccag gacccacaaa 350
 gggcgaggag gacaaccatc tatgcagagc cagcgccaga gaacaatgcc 400
 ctcaacacac aaaccagcc caaggccac accaccggag acagaggaaa 450
 ggaggccaac caggcacgcg cggaggagca ggacaagggtg cccacacag 500
 cacagagggc agcatggaag agcccagaaa aagagaaaac catggtgaac 550
 acaactgtcac ccagagggca agatgcaggg atggcctctg gcaggacaga 600
 ggcaaatca tggaaagacc aggacacaaa gacgaccaa ggaaatgggg 650
 gccagaccag gaagctgacg gcctccagga cgggtgcaga gaagcaccag 700
 ggcaaagcgg caaccacagc caagacgctc attccccaaa gtcagcacag 750
 aatgtcggct cccacaggag cagtgtcaac aaggacgaga cagaaaggag 800
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 cccctgccc cttccagag cccacgacg cagagaaacc aaagactgaa 900
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 gcttcgaat aggagcctt cagacgactt gccctgactc tgtgaagatc 1000
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 aacactttgc accacccttt ggcttcattg agctcaacta ctcttggtg 1150
 cagaaggctg tgacacgctt cctccagtg cccacgacg agctgctcct 1200
 ggccagcctc cccgctggga gcctccgggt catcacctgt gccgtggtgg 1250
 gcaacggggg catcctgaac aactcccaca tgggccagga gatagacagt 1300
 cagactacg tgttccgatt gagcggagct ctattaaag gtcacgaaca 1350
 ggatgtgggg actcggacat ccttctacgg ctttaccgcc ttctccctga 1400
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gggaaggacg tccgtactt gcacttctg gaaggcacc gggactatga 1500
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 gtttctgagg tctaagacc tggatggtgc ccaactggagg atataccgcc 1700
 ccaccactgg ggccctcctg ctgctcactg cccttcagct ctgtgaccag 1750
 gtgagtgtt atggcttcat cactgagggc catgagcgct tttctgatca 1800
 ctactatgat acatcatgga agcggtgat cttttacata aaccatgact 1850
 tcaagctgga gagagaagtc tggaagcggc tacacgatga agggataatc 1900
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 gatacagaaa aaagagcctg gatttacaga aacatataga tctggtttga 2300
 attccagatc gagtttacag ttgtgaaatc ttgaaggtat tacttaactt 2350
 cactacagat tgtctagaag acctttctag gatttatctg attctagaag 2400
 ggtctatact tgtccttgct ttttaagctat ttgacaactc tacgtgtgtg 2450
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 atttctaca gtgaaaaaaa aaaaaaaa 2528

<210> 347

<211> 600

<212> PRT

<213> Homo sapiens

<400> 347

Met	Arg	Ser	Cys	Leu	Trp	Arg	Cys	Arg	His	Leu	Ser	Gln	Gly	Val
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Gln	Trp	Ser	Leu	Leu	Leu	Ala	Val	Leu	Val	Phe	Phe	Leu	Phe	Ala
				20					25					30
Leu	Pro	Ser	Phe	Ile	Lys	Glu	Pro	Gln	Thr	Lys	Pro	Ser	Arg	His
				35					40					45
Gln	Arg	Thr	Glu	Asn	Ile	Lys	Glu	Arg	Ser	Leu	Gln	Ser	Leu	Ala
				50					55					60
Lys	Pro	Lys	Ser	Gln	Ala	Pro	Thr	Arg	Ala	Arg	Arg	Thr	Thr	Ile

	65	70	75
Tyr Ala Glu Pro	Ala Pro Glu Asn Asn	Ala Leu Asn Thr Gln Thr	
	80	85	90
Gln Pro Lys Ala	His Thr Thr Gly Asp	Arg Gly Lys Glu Ala Asn	
	95	100	105
Gln Ala Pro Pro	Glu Glu Gln Asp Lys	Val Pro His Thr Ala Gln	
	110	115	120
Arg Ala Ala Trp	Lys Ser Pro Glu Lys	Glu Lys Thr Met Val Asn	
	125	130	135
Thr Leu Ser Pro	Arg Gly Gln Asp Ala	Gly Met Ala Ser Gly Arg	
	140	145	150
Thr Glu Ala Gln	Ser Trp Lys Ser Gln	Asp Thr Lys Thr Thr Gln	
	155	160	165
Gly Asn Gly Gly	Gln Thr Arg Lys Leu	Thr Ala Ser Arg Thr Val	
	170	175	180
Ser Glu Lys His	Gln Gly Lys Ala Ala	Thr Thr Ala Lys Thr Leu	
	185	190	195
Ile Pro Lys Ser	Gln His Arg Met Leu	Ala Pro Thr Gly Ala Val	
	200	205	210
Ser Thr Arg Thr	Arg Gln Lys Gly Val	Thr Thr Ala Val Ile Pro	
	215	220	225
Pro Lys Glu Lys	Lys Pro Gln Ala Thr	Pro Pro Pro Ala Pro Phe	
	230	235	240
Gln Ser Pro Thr	Thr Gln Arg Asn Gln	Arg Leu Lys Ala Ala Asn	
	245	250	255
Phe Lys Ser Glu	Pro Arg Trp Asp Phe	Glu Glu Lys Tyr Ser Phe	
	260	265	270
Glu Ile Gly Gly	Leu Gln Thr Thr Cys	Pro Asp Ser Val Lys Ile	
	275	280	285
Lys Ala Ser Lys	Ser Leu Trp Leu Gln	Lys Leu Phe Leu Pro Asn	
	290	295	300
Leu Thr Leu Phe	Leu Asp Ser Arg His	Phe Asn Gln Ser Glu Trp	
	305	310	315
Asp Arg Leu Glu	His Phe Ala Pro Pro	Phe Gly Phe Met Glu Leu	
	320	325	330
Asn Tyr Ser Leu	Val Gln Lys Val Val	Thr Arg Phe Pro Pro Val	
	335	340	345
Pro Gln Gln Gln	Leu Leu Leu Ala Ser	Leu Pro Ala Gly Ser Leu	
	350	355	360
Arg Cys Ile Thr	Cys Ala Val Val Gly	Asn Gly Gly Ile Leu Asn	
	365	370	375
Asn Ser His Met	Gly Gln Glu Ile Asp	Ser His Asp Tyr Val Phe	

	380		385		390
Arg Leu Ser Gly	Ala Leu Ile Lys Gly	Tyr Glu Gln Asp Val Gly			
	395	400			405
Thr Arg Thr Ser	Phe Tyr Gly Phe Thr	Ala Phe Ser Leu Thr Gln			
	410	415			420
Ser Leu Leu Ile	Leu Gly Asn Arg Gly	Phe Lys Asn Val Pro Leu			
	425	430			435
Gly Lys Asp Val	Arg Tyr Leu His Phe	Leu Glu Gly Thr Arg Asp			
	440	445			450
Tyr Glu Trp Leu	Glu Ala Leu Leu Met	Asn Gln Thr Val Met Ser			
	455	460			465
Lys Asn Leu Phe	Trp Phe Arg His Arg	Pro Gln Glu Ala Phe Arg			
	470	475			480
Glu Ala Leu His	Met Asp Arg Tyr Leu	Leu Leu His Pro Asp Phe			
	485	490			495
Leu Arg Tyr Met	Lys Asn Arg Phe Leu	Arg Ser Lys Thr Leu Asp			
	500	505			510
Gly Ala His Trp	Arg Ile Tyr Arg Pro	Thr Thr Gly Ala Leu Leu			
	515	520			525
Leu Leu Thr Ala	Leu Gln Leu Cys Asp	Gln Val Ser Ala Tyr Gly			
	530	535			540
Phe Ile Thr Glu	Gly His Glu Arg Phe	Ser Asp His Tyr Tyr Asp			
	545	550			555
Thr Ser Trp Lys	Arg Leu Ile Phe Tyr	Ile Asn His Asp Phe Lys			
	560	565			570
Leu Glu Arg Glu	Val Trp Lys Arg Leu	His Asp Glu Gly Ile Ile			
	575	580			585
Arg Leu Tyr Gln	Arg Pro Gly Pro Gly	Thr Ala Lys Ala Lys Asn			
	590	595			600

<210> 348
 <211> 496
 <212> DNA
 <213> Homo sapiens

<400> 348
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 gaaggacaag ttcttaaaac accttacagg cctcttttat tttagtccaa 150
 agtgcagcaa acacttccat agactttatc acaacaccag agactgcacc 200
 attcctgcat actataaaag atgcgccagg ctctttaccc ggctgggtgt 250
 cagtccagtg tgcattggagg ataagtgagc agaccgtaca ggagcagcac 300
 accaggagcc atgagaagtg ccttggaaac caacagggaa acagaactat 350

ctttatacac atccccctcat ggacaagaga tttatttttg cagacagact 400
 cttccataag tcctttgagt ttgtatgtt gttgacagtt tgcagatata 450
 tattcgataa atcagtgtag ttgacagtg tatctgtcac ttattt 496

<210> 349
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 349
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 20 25 30
 Leu Arg Met Lys Asp Lys Phe Leu Lys His Leu Thr Gly Pro Leu
 35 40 45
 Tyr Phe Ser Pro Lys Cys Ser Lys His Phe His Arg Leu Tyr His
 50 55 60
 Asn Thr Arg Asp Cys Thr Ile Pro Ala Tyr Tyr Lys Arg Cys Ala
 65 70 75
 Arg Leu Leu Thr Arg Leu Ala Val Ser Pro Val Cys Met Glu Asp
 80 85 90
 Lys

<210> 350
 <211> 1141
 <212> DNA
 <213> Homo sapiens

<400> 350
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 gggggctccc ctggtgctgg ccggcgagga ctgcctgtgg tacctggacc 200
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 tgcgggacct gctaccatcg gtactgtgc agggacctga ccttgcttat 300
 caccgagagg cagcagaagc actgcctggc ctcagcccc aagaccatag 350
 caggcatgc ctcagctgtg atcctctttg ttgctgtggt tgccaccacc 400
 atctgtgtgt tcctctgttc ctgttgctac ctgtaccgcc ggcgccagca 450
 gctccagagc ccatttgaag gccaggagat tccaatgaca ggcacccagc 500
 tgcagccagt ataaccatac cccaggacc ccaaagctgg ccttgacc 550
 ccacagcctg gcttcatgta cccacctagt ggtcctgctc cccaatatcc 600

actctaccca gctgggcccc cagtctacaa cctgcagct cctcctccct 650
 atatgccacc acagccctct taccgggag cctgaggaac cagccatgtc 700
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 cctgcacatg gtctctggggg tggcaggagt cctccagcca ccaggcccca 800
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 aacaggagct gaactagaac tatgaggggt tggggggagg gcttgaatt 900
 atgggctatt ttactgggg gcaaggagg gagatgacag cctgggtcac 950
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<210> 351

<211> 197

<212> PRT

<213> Homo sapiens

<400> 351

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Ala	Leu	Leu	Val	Leu	Gly	Ala	Pro	Leu	Val	Leu	Ala	Gly	Glu	Asp
			20						25					30
Cys	Leu	Trp	Tyr	Leu	Asp	Arg	Asn	Gly	Ser	Trp	His	Pro	Gly	Phe
			35						40					45
Asn	Cys	Glu	Phe	Phe	Thr	Phe	Cys	Cys	Gly	Thr	Cys	Tyr	His	Arg
			50						55					60
Tyr	Cys	Cys	Arg	Asp	Leu	Thr	Leu	Leu	Ile	Thr	Glu	Arg	Gln	Gln
			65						70					75
Lys	His	Cys	Leu	Ala	Phe	Ser	Pro	Lys	Thr	Ile	Ala	Gly	Ile	Ala
			80						85					90
Ser	Ala	Val	Ile	Leu	Phe	Val	Ala	Val	Val	Ala	Thr	Thr	Ile	Cys
			95						100					105
Cys	Phe	Leu	Cys	Ser	Cys	Cys	Tyr	Leu	Tyr	Arg	Arg	Arg	Gln	Gln
			110						115					120
Leu	Gln	Ser	Pro	Phe	Glu	Gly	Gln	Glu	Ile	Pro	Met	Thr	Gly	Ile
			125						130					135
Pro	Val	Gln	Pro	Val	Tyr	Pro	Tyr	Pro	Gln	Asp	Pro	Lys	Ala	Gly
			140						145					150
Pro	Ala	Pro	Pro	Gln	Pro	Gly	Phe	Met	Tyr	Pro	Pro	Ser	Gly	Pro
			155						160					165
Ala	Pro	Gln	Tyr	Pro	Leu	Tyr	Pro	Ala	Gly	Pro	Pro	Val	Tyr	Asn
			170						175					180

Pro Ala Ala Pro Pro Pro Tyr Met Pro Pro Gln Pro Ser Tyr Pro
185 190 195

Gly Ala

<210> 352
<211> 3226
<212> DNA
<213> Homo sapiens

<400> 352
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ctcaaatggt cccctgcaac catgtcattt ctactttcct cactgttggc 150
tctcttaact gtgtccactc cttcatgttg tcagagcact gaagcatctc 200
caaaacgtag tgatgggaca ccatttcctt ggaataaaat acgacttcct 250
gagtacgtca tcccagttca ttatgatctc ttgatccatg caaacottac 300
cacgctgacc ttctggggaa ccacgaaagt agaaatcaca gccagtcagc 350
ccaccagcac catcatcctg catagtcacc acctgcagat atctagggcc 400
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cctggaacac cccctcagg agcaaatgtc actgctggct cccgagcccc 500
tccttgtcgg gctcccgta acagttgtca ttactatgc tggcaatctt 550
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gaaatctgtg actgttgctg aaggactcat agaagaccat ttgatgtca 800
ctgtgaagat gagcacctat ctggtggcct tcatcatttc agattttgag 850
tctgtcagca agataaccaa gaggtagtc aaggtttctg tttatgtctg 900
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ttctagaatt ttatgaggat tatttcagca taccgtatcc cctacccaaa 1000
caagatcttg ctgctattcc cgactttcag tctggtgcta tggaaaactg 1050
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cttctgcac aagtaagctt ggcatcacag tgactgtggc ccatgaactg 1150
gccaccagt ggtttgggaa cctggtcact atggaatggt ggaatgatct 1200
ttggctaaat gaaggatttg ccaaatttat ggagtttggt tctgtcagtg 1250
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 tcatctctac attggcatca ggaaggggtg gatgtgaaaa ccatgatgaa 1650
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 ggctattaca ttgtgcatta cgaggatgat ggatgggact ctttgactgg 1950
 ccttttaaaa ggaacacaca cagcagtcag cagtaatgat cgggcaagtc 2000
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 cgtgtttcaa ggtttgaatg agctgattcc tatgtataag ttaattggaga 2150
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<210> 353
 <211> 941
 <212> PRT
 <213> Homo sapiens

<400> 353
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 20 25 30
 Trp Cys Gln Ser Thr Glu Ala Ser Pro Lys Arg Ser Asp Gly Thr
 35 40 45
 Pro Phe Pro Trp Asn Lys Ile Arg Leu Pro Glu Tyr Val Ile Pro
 50 55 60
 Val His Tyr Asp Leu Leu Ile His Ala Asn Leu Thr Thr Leu Thr
 65 70 75
 Phe Trp Gly Thr Thr Lys Val Glu Ile Thr Ala Ser Gln Pro Thr
 80 85 90
 Ser Thr Ile Ile Leu His Ser His His Leu Gln Ile Ser Arg Ala
 95 100 105
 Thr Leu Arg Lys Gly Ala Gly Glu Arg Leu Ser Glu Glu Pro Leu
 110 115 120
 Gln Val Leu Glu His Pro Pro Gln Glu Gln Ile Ala Leu Leu Ala
 125 130 135
 Pro Glu Pro Leu Leu Val Gly Leu Pro Tyr Thr Val Val Ile His
 140 145 150
 Tyr Ala Gly Asn Leu Ser Glu Thr Phe His Gly Phe Tyr Lys Ser
 155 160 165
 Thr Tyr Arg Thr Lys Glu Gly Glu Leu Arg Ile Leu Ala Ser Thr
 170 175 180
 Gln Phe Glu Pro Thr Ala Ala Arg Met Ala Phe Pro Cys Phe Asp
 185 190 195
 Glu Pro Ala Phe Lys Ala Ser Phe Ser Ile Lys Ile Arg Arg Glu
 200 205 210
 Pro Arg His Leu Ala Ile Ser Asn Met Pro Leu Val Lys Ser Val

Thr Val Ala Glu Gly Leu Ile Glu Asp His Phe Asp Val Thr Val	215	220	225
230	235	240	
Lys Met Ser Thr Tyr Leu Val Ala Phe Ile Ile Ser Asp Phe Glu	245	250	255
Ser Val Ser Lys Ile Thr Lys Ser Gly Val Lys Val Ser Val Tyr	260	265	270
Ala Val Pro Asp Lys Ile Asn Gln Ala Asp Tyr Ala Leu Asp Ala	275	280	285
Ala Val Thr Leu Leu Glu Phe Tyr Glu Asp Tyr Phe Ser Ile Pro	290	295	300
Tyr Pro Leu Pro Lys Gln Asp Leu Ala Ala Ile Pro Asp Phe Gln	305	310	315
Ser Gly Ala Met Glu Asn Trp Gly Leu Thr Thr Tyr Arg Glu Ser	320	325	330
Ala Leu Leu Phe Asp Ala Glu Lys Ser Ser Ala Ser Ser Lys Leu	335	340	345
Gly Ile Thr Val Thr Val Ala His Glu Leu Ala His Gln Trp Phe	350	355	360
Gly Asn Leu Val Thr Met Glu Trp Trp Asn Asp Leu Trp Leu Asn	365	370	375
Glu Gly Phe Ala Lys Phe Met Glu Phe Val Ser Val Ser Val Thr	380	385	390
His Pro Glu Leu Lys Val Gly Asp Tyr Phe Phe Gly Lys Cys Phe	395	400	405
Asp Ala Met Glu Val Asp Ala Leu Asn Ser Ser His Pro Val Ser	410	415	420
Thr Pro Val Glu Asn Pro Ala Gln Ile Arg Glu Met Phe Asp Asp	425	430	435
Val Ser Tyr Asp Lys Gly Ala Cys Ile Leu Asn Met Leu Arg Glu	440	445	450
Tyr Leu Ser Ala Asp Ala Phe Lys Ser Gly Ile Val Gln Tyr Leu	455	460	465
Gln Lys His Ser Tyr Lys Asn Thr Lys Asn Glu Asp Leu Trp Asp	470	475	480
Ser Met Ala Ser Ile Cys Pro Thr Asp Gly Val Lys Gly Met Asp	485	490	495
Gly Phe Cys Ser Arg Ser Gln His Ser Ser Ser Ser His Trp	500	505	510
His Gln Glu Gly Val Asp Val Lys Thr Met Met Asn Thr Trp Thr	515	520	525
Leu Gln Arg Gly Phe Pro Leu Ile Thr Ile Thr Val Arg Gly Arg			

Asn Val His Met	Lys Gln Glu His Tyr	Met Lys Gly Ser Asp Gly
545		550 555
Ala Pro Asp Thr	Gly Tyr Leu Trp His	Val Pro Leu Thr Phe Ile
560		565 570
Thr Ser Lys Ser	Asn Met Val His Arg	Phe Leu Leu Lys Thr Lys
575		580 585
Thr Asp Val Leu	Ile Leu Pro Glu Glu	Val Glu Trp Ile Lys Phe
590		595 600
Asn Val Gly Met	Asn Gly Tyr Tyr Ile	Val His Tyr Glu Asp Asp
605		610 615
Gly Trp Asp Ser	Leu Thr Gly Leu Leu	Lys Gly Thr His Thr Ala
620		625 630
Val Ser Ser Asn	Asp Arg Ala Ser Leu	Ile Asn Asn Ala Phe Gln
635		640 645
Leu Val Ser Ile	Gly Lys Leu Ser Ile	Glu Lys Ala Leu Asp Leu
650		655 660
Ser Leu Tyr Leu	Lys His Glu Thr Glu	Ile Met Pro Val Phe Gln
665		670 675
Gly Leu Asn Glu	Leu Ile Pro Met Tyr	Lys Leu Met Glu Lys Arg
680		685 690
Asp Met Asn Glu	Val Glu Thr Gln Phe	Lys Ala Phe Leu Ile Arg
695		700 705
Leu Leu Arg Asp	Leu Ile Asp Lys Gln	Thr Trp Thr Asp Glu Gly
710		715 720
Ser Val Ser Glu	Gln Met Leu Arg Ser	Glu Leu Leu Leu Leu Ala
725		730 735
Cys Val His Asn	Tyr Gln Pro Cys Val	Gln Arg Ala Glu Gly Tyr
740		745 750
Phe Arg Lys Trp	Lys Glu Ser Asn Gly	Asn Leu Ser Leu Pro Val
755		760 765
Asp Val Thr Leu	Ala Val Phe Ala Val	Gly Ala Gln Ser Thr Glu
770		775 780
Gly Trp Asp Phe	Leu Tyr Ser Lys Tyr	Gln Phe Ser Leu Ser Ser
785		790 795
Thr Glu Lys Ser	Gln Ile Glu Phe Ala	Leu Cys Arg Thr Gln Asn
800		805 810
Lys Glu Lys Leu	Gln Trp Leu Leu Asp	Glu Ser Phe Lys Gly Asp
815		820 825
Lys Ile Lys Thr	Gln Glu Phe Pro Gln	Ile Leu Thr Leu Ile Gly
830		835 840
Arg Asn Pro Val	Gly Tyr Pro Leu Ala	Trp Gln Phe Leu Arg Lys

				845					850					855
Asn	Trp	Asn	Lys	Leu	Val	Gln	Lys	Phe	Glu	Leu	Gly	Ser	Ser	Ser
				860					865					870
Ile	Ala	His	Met	Val	Met	Gly	Thr	Thr	Asn	Gln	Phe	Ser	Thr	Arg
				875					880					885
Thr	Arg	Leu	Glu	Glu	Val	Lys	Gly	Phe	Phe	Ser	Ser	Leu	Lys	Glu
				890					895					900
Asn	Gly	Ser	Gln	Leu	Arg	Cys	Val	Gln	Gln	Thr	Ile	Glu	Thr	Ile
				905					910					915
Glu	Glu	Asn	Ile	Gly	Trp	Met	Asp	Lys	Asn	Phe	Asp	Lys	Ile	Arg
				920					925					930
Val	Trp	Leu	Gln	Ser	Glu	Lys	Leu	Glu	Arg	Met				
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<210>	354
<211>	1587
<212>	DNA
<213>	Homo

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		gttcagcatg	tgtggaaggt	gtccgacct	ccccggcaat	ggacccttaa	150
		gaacaccagc	tgcgacagcg	gcttgggggt	ccaggacacg	ttgatgtctc	200
		ttgagagcgg	acccaagtg	agcctgtgtc	tctccaaggg	ctgcacggag	250
		gccaaaggacc	aggagccccg	cgctactgag	caccggatgg	gccccggcct	300
		ctccctgata	tctacacct	tcgtgtgcgc	ccaggaggac	ttctgcaaca	350
		acctcgtaa	ctccctcccg	ctttggggccc	cacagcccc	agcagaccca	400
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		gacaacagaa	gagatctgcc	ccaaggggac	cacacactgt	tatgatggcc	500
		tcctcaggct	caggggagga	ggcatcttct	ccaatctgag	agtcacggga	550
		tgcatacccc	agccaggttg	caacctgtct	aatgggacac	aggaatttgg	600
		gcccggtggg	atgactgaga	actgcaatag	gaaagatttt	ctgaactgtc	650
		atcgggggac	caccattatg	acacacggaa	acttggtctc	agaaccacct	700
		gattggacca	catcgaatac	cgagatgtgc	gaggtggggc	aggtgtgtca	750
		ggagacgctg	ctgctcatag	atgtaggact	cacatcaacc	ctggtgggga	800
		caaaaggctg	cagcactgtt	ggggctcaaa	attccagaaa	gaccaccatc	850
		cactcagccc	ctcctggggt	gcttgtggcc	tcctataccc	acttetgtct	900
		ctcggacctg	tgcaatagt	ccagcagcag	cagcgttctg	ctgaaactcc	950

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<210> 355

<211> 437

<212> PRT

<213> Homo sapiens

<400> 355

Met	Ser	Ala	Val	Leu	Leu	Leu	Ala	Leu	Leu	Gly	Phe	Ile	Leu	Pro
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Leu	Pro	Gly	Val	Gln	Ala	Leu	Leu	Cys	Gln	Phe	Gly	Thr	Val	Gln
			20						25					30
His	Val	Trp	Lys	Val	Ser	Asp	Leu	Pro	Arg	Gln	Trp	Thr	Pro	Lys
			35						40					45
Asn	Thr	Ser	Cys	Asp	Ser	Gly	Leu	Gly	Cys	Gln	Asp	Thr	Leu	Met
			50						55					60
Leu	Ile	Glu	Ser	Gly	Pro	Gln	Val	Ser	Leu	Val	Leu	Ser	Lys	Gly
			65						70					75
Cys	Thr	Glu	Ala	Lys	Asp	Gln	Glu	Pro	Arg	Val	Thr	Glu	His	Arg
			80						85					90
Met	Gly	Pro	Gly	Leu	Ser	Leu	Ile	Ser	Tyr	Thr	Phe	Val	Cys	Arg
			95						100					105
Gln	Glu	Asp	Phe	Cys	Asn	Asn	Leu	Val	Asn	Ser	Leu	Pro	Leu	Trp
			110						115					120
Ala	Pro	Gln	Pro	Pro	Ala	Asp	Pro	Gly	Ser	Leu	Arg	Cys	Pro	Val
			125						130					135
Cys	Leu	Ser	Met	Glu	Gly	Cys	Leu	Glu	Gly	Thr	Thr	Glu	Glu	Ile
			140						145					150
Cys	Pro	Lys	Gly	Thr	Thr	His	Cys	Tyr	Asp	Gly	Leu	Leu	Arg	Leu

155	160	165
Arg Gly Gly Gly Ile Phe Ser Asn Leu	Arg Val Gln Gly Cys Met	
170	175	180
Pro Gln Pro Gly Cys Asn Leu Leu Asn	Gly Thr Gln Glu Ile Gly	
185	190	195
Pro Val Gly Met Thr Glu Asn Cys Asn	Arg Lys Asp Phe Leu Thr	
200	205	210
Cys His Arg Gly Thr Thr Ile Met Thr	His Gly Asn Leu Ala Gln	
215	220	225
Glu Pro Thr Asp Trp Thr Thr Ser Asn	Thr Glu Met Cys Glu Val	
230	235	240
Gly Gln Val Cys Gln Glu Thr Leu Leu	Leu Ile Asp Val Gly Leu	
245	250	255
Thr Ser Thr Leu Val Gly Thr Lys Gly	Cys Ser Thr Val Gly Ala	
260	265	270
Gln Asn Ser Gln Lys Thr Thr Ile His	Ser Ala Pro Pro Gly Val	
275	280	285
Leu Val Ala Ser Tyr Thr His Phe Cys	Ser Ser Asp Leu Cys Asn	
290	295	300
Ser Ala Ser Ser Ser Ser Val Leu Leu	Asn Ser Leu Pro Pro Gln	
305	310	315
Ala Ala Pro Val Pro Gly Asp Arg Gln	Cys Pro Thr Cys Val Gln	
320	325	330
Pro Leu Gly Thr Cys Ser Ser Gly Ser	Pro Arg Met Thr Cys Pro	
335	340	345
Arg Gly Ala Thr His Cys Tyr Asp Gly	Tyr Ile His Leu Ser Gly	
350	355	360
Gly Gly Leu Ser Thr Lys Met Ser Ile	Gln Gly Cys Val Ala Gln	
365	370	375
Pro Ser Ser Phe Leu Leu Asn His Thr	Arg Gln Ile Gly Ile Phe	
380	385	390
Ser Ala Arg Glu Lys Arg Asp Val Gln	Pro Pro Ala Ser Gln His	
395	400	405
Glu Gly Gly Gly Ala Glu Gly Leu Glu	Ser Leu Thr Trp Gly Val	
410	415	420
Gly Leu Ala Leu Ala Pro Ala Leu Trp	Trp Gly Val Val Cys Pro	
425	430	435

Ser Cys

<210> 356
 <211> 1238
 <212> DNA
 <213> Homo sapiens

<400> 356
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 ggcgatgacg cctgctctgt gcagatcttc gtccttgccc tcaaaagggg 200
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 aaaaatgaag tggtcctggg gtgctgtctc tgaagaagca gagtttcatt 1100
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 tagtgcagta gttaagtcca aaaaaaaaaa aaaaaaaaa 1238

<210> 357

<211> 271

<212> PRT

<213> Homo sapiens

<400> 357

Met	Arg	Gly	Asn	Leu	Ala	Leu	Val	Gly	Val	Leu	Ile	Ser	Leu	Ala
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Phe	Leu	Ser	Leu	Leu	Pro	Ser	Gly	His	Pro	Gln	Pro	Ala	Gly	Asp
			20					25					30	

Asp Ala Cys Ser Val Gln Ile Leu Val Pro Gly Leu Lys Gly Asp 35 40 45
 Ala Gly Glu Lys Gly Asp Lys Gly Ala Pro Gly Arg Pro Gly Arg 50 55 60
 Val Gly Pro Thr Gly Glu Lys Gly Asp Met Gly Asp Lys Gly Gln 65 70 75
 Lys Gly Ser Val Gly Arg His Gly Lys Ile Gly Pro Ile Gly Ser 80 85 90
 Lys Gly Glu Lys Gly Asp Ser Gly Asp Ile Gly Pro Pro Gly Pro 95 100 105
 Asn Gly Glu Pro Gly Leu Pro Cys Glu Cys Ser Gln Leu Arg Lys 110 115 120
 Ala Ile Gly Glu Met Asp Asn Gln Val Ser Gln Leu Thr Ser Glu 125 130 135
 Leu Lys Phe Ile Lys Asn Ala Val Ala Gly Val Arg Glu Thr Glu 140 145 150
 Ser Lys Ile Tyr Leu Leu Val Lys Glu Glu Lys Arg Tyr Ala Asp 155 160 165
 Ala Gln Leu Ser Cys Gln Gly Arg Gly Gly Thr Leu Ser Met Pro 170 175 180
 Lys Asp Glu Ala Ala Asn Gly Leu Met Ala Ala Tyr Leu Ala Gln 185 190 195
 Ala Gly Leu Ala Arg Val Phe Ile Gly Ile Asn Asp Leu Glu Lys 200 205 210
 Glu Gly Ala Phe Val Tyr Ser Asp His Ser Pro Met Arg Thr Phe 215 220 225
 Asn Lys Trp Arg Ser Gly Glu Pro Asn Asn Ala Tyr Asp Glu Glu 230 235 240
 Asp Cys Val Glu Met Val Ala Ser Gly Gly Trp Asn Asp Val Ala 245 250 255
 Cys His Thr Thr Met Tyr Phe Met Cys Glu Phe Asp Lys Glu Asn 260 265 270

Met

<210> 358

<211> 972

<212> DNA

<213> Homo sapiens

<400> 358

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aggcaccatg aggatcatgc tgctattcac agccatcctg gccttcagcc 200
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 cagctttggc atcctcaagt atccccgag agcagaatag gtactccact 650
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 aaaaaaaaaa aaaaaaaaaa aa 972

<210> 359

<211> 135

<212> PRT

<213> Homo sapiens

<400> 359

Met	Arg	Ile	Met	Leu	Leu	Phe	Thr	Ala	Ile	Leu	Ala	Phe	Ser	Leu
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Ala	Gln	Ser	Phe	Gly	Ala	Val	Cys	Lys	Glu	Pro	Gln	Glu	Glu	Val
			20						25					30
Val	Pro	Gly	Gly	Gly	Arg	Ser	Lys	Arg	Asp	Pro	Asp	Leu	Tyr	Gln
			35						40					45
Leu	Leu	Gln	Arg	Leu	Phe	Lys	Ser	His	Ser	Ser	Leu	Glu	Gly	Leu
			50						55					60
Leu	Lys	Ala	Leu	Ser	Gln	Ala	Ser	Thr	Asp	Pro	Lys	Glu	Ser	Thr
			65						70					75
Ser	Pro	Glu	Lys	Arg	Asp	Met	His	Asp	Phe	Phe	Val	Gly	Leu	Met
			80						85					90
Gly	Lys	Arg	Ser	Val	Gln	Pro	Glu	Gly	Lys	Thr	Gly	Pro	Phe	Leu
			95						100					105
Pro	Ser	Val	Arg	Val	Pro	Arg	Pro	Leu	His	Pro	Asn	Gln	Leu	Gly
			110						115					120

Ser Thr Gly Lys Ser Ser Leu Gly Thr Glu Glu Gln Arg Pro Leu
 125 130 135

<210> 360
 <211> 1738
 <212> DNA
 <213> Homo sapiens

<400> 360
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 agctctgccc caggagccca ggcgtccccg tgagtcccat agttgctgca 200
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<210> 361

<211> 159

<212> PRT

<213> Homo sapiens

<400> 361

Met	Ser	Cys	Val	Leu	Gly	Gly	Val	Ile	Pro	Leu	Gly	Leu	Leu	Phe
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Leu	Val	Cys	Gly	Ser	Gln	Gly	Tyr	Leu	Leu	Pro	Asn	Val	Thr	Leu
			20					25						30
Leu	Glu	Glu	Leu	Leu	Ser	Lys	Tyr	Gln	His	Asn	Glu	Ser	His	Ser
			35					40						45
Arg	Val	Arg	Arg	Ala	Ile	Pro	Arg	Glu	Asp	Lys	Glu	Glu	Ile	Leu
			50					55						60
Met	Leu	His	Asn	Lys	Leu	Arg	Gly	Gln	Val	Gln	Pro	Gln	Ala	Ser
			65					70						75
Asn	Met	Glu	Tyr	Met	Val	Ser	Ala	Gly	Ser	Gly	Arg	Arg	Gly	Trp
			80					85						90
His	Arg	Gly	Trp	Gly	Leu	Gly	His	Gln	Pro	Ala	Leu	Phe	Pro	Ser
			95					100						105
Gln	Leu	Cys	Ser	Pro	Ala	Ser	Ala	Cys	Asp	Gly	Trp	Leu	Arg	Val
			110					115						120
Ser	Ser	Gly	Arg	Gly	Gly	Ser	Arg	Leu	Cys	Ser	Val	Leu	Phe	Val
			125					130						135
Cys	Phe	Glu	Thr	Gly	Ser	His	Ser	Ala	Thr	Asp	Ala	Gly	Val	Gln
			140					145						150
Trp	His	Asn	Arg	His	Ala	Leu	Lys	Pro						
			155											

<210> 362

<211> 422

<212> DNA

<213> Homo sapiens

<400> 362

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gcagctcaca tggaacaggc cggggtatga ctttgcaact gaagctgaag 150
gagtcctttc tgacaaattc ctccatgatg tccagcttcc tggaattgct 200
tgaaaagctc tgccctctcc tccatctccc ttcaggagacc agcgtcacc 250
tccaccatgc aagatctcaa caccatgttg tctgcaacac atgacagcca 300
ttgaagcctg tgtccttctt ggcccgggct tttgggccgg ggatgcagga 350
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ataataaaaa ttcggtatgc tg 422

<210> 363
<211> 78
<212> PRT
<213> Homo sapiens

<400> 363
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20 25 30
Lys Glu Ser Phe Leu Thr Asn Ser Ser Tyr Glu Ser Ser Phe Leu
35 40 45
Glu Leu Leu Glu Lys Leu Cys Leu Leu Leu His Leu Pro Ser Gly
50 55 60
Thr Ser Val Thr Leu His His Ala Arg Ser Gln His His Val Val
65 70 75
Cys Asn Thr

<210> 364
<211> 826
<212> DNA
<213> Homo sapiens

<400> 364
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acaattaact gttaggattg cagttatgat tggatattat ttaattctgt 150
ttctgatgtg gggttctcc actgtgttct gtgtgctatt aatatttacc 200
attgcagaag ctccattcag tgttgaaat gaatgcttag tggatctgtg 250
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aaaaggcatg tatttaaatc tgtatgattc tcaaccatct ttagttggga 400
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caagtgagtg ttacottttc acttagtagg atgtgttggt acgctagtaa 500
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tttattttat gtgtgtgttc ttggctgtat tcataaatta tatattttgg 600
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tacttagata tgctttctag ttgcatttcc tcagcctatg taagactact 700
ttgttgtaat agcctttgaa atttacagta ctgtctctct actatcttca 750
gattacttga ttcaataaaa ccaattatgt ttgtaattga tattaataaa 800
accagaataa aagttcatat ctaccc 826

<210> 365

<211> 67

<212> PRT

<213> Homo sapiens

<400> 365

Met	Ile	Gly	Tyr	Tyr	Leu	Ile	Leu	Phe	Leu	Met	Trp	Gly	Ser	Ser
1				5					10					15
Thr	Val	Phe	Cys	Val	Leu	Leu	Ile	Phe	Thr	Ile	Ala	Glu	Ala	Ser
				20					25					30
Phe	Ser	Val	Glu	Asn	Glu	Cys	Leu	Val	Asp	Leu	Cys	Leu	Leu	Arg
				35					40					45
Ile	Cys	Tyr	Lys	Leu	Ser	Gly	Val	Pro	Asn	Gln	Cys	Arg	Val	Pro
				50					55					60
Leu	Pro	Ser	Asp	Cys	Ser	Lys								
				65										

<210> 366

<211> 2475

<212> DNA

<213> Homo sapiens

<400> 366

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gttctcttga gctttttctg ccccgccgca gtgtaccag gaccagacca 200
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gagattgact acatacaata ccttcgagag gctgacgagt gcactgtatc 450
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<210> 367

<211> 402

<212> PRT

<213> Homo sapiens

<400> 367

Met	Met	Val	Ala	Leu	Arg	Gly	Ala	Ser	Ala	Leu	Leu	Val	Leu	Phe	1	5	10	15
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Met	Val	His	Tyr	Ile	Tyr	Gln	Arg	Phe	Arg	Val	Leu	Glu	Gln	Gly	35	40	45	
Leu	Glu	Lys	Cys	Thr	Gln	Ala	Thr	Arg	Ala	Tyr	Ile	Gln	Glu	Phe	50	55	60	
Gln	Glu	Phe	Ser	Lys	Asn	Ile	Ser	Val	Met	Leu	Gly	Arg	Cys	Gln	65	70	75	
Thr	Tyr	Thr	Ser	Glu	Tyr	Lys	Ser	Ala	Val	Gly	Asn	Leu	Ala	Leu	80	85	90	
Arg	Val	Glu	Arg	Ala	Gln	Arg	Glu	Ile	Asp	Tyr	Ile	Gln	Tyr	Leu	95	100	105	
Arg	Glu	Ala	Asp	Glu	Cys	Ile	Val	Ser	Glu	Asp	Lys	Thr	Leu	Ala	110	115	120	
Glu	Met	Leu	Leu	Gln	Glu	Ala	Glu	Glu	Glu	Lys	Lys	Ile	Arg	Thr	125	130	135	
Leu	Leu	Asn	Ala	Ser	Cys	Asp	Asn	Met	Leu	Met	Gly	Ile	Lys	Ser	140	145	150	
Leu	Lys	Ile	Val	Lys	Lys	Met	Met	Asp	Thr	His	Gly	Ser	Trp	Met	155	160	165	
Lys	Asp	Ala	Val	Tyr	Asn	Ser	Pro	Lys	Val	Tyr	Leu	Leu	Ile	Gly	170	175	180	
Ser	Arg	Asn	Asn	Thr	Val	Trp	Glu	Phe	Ala	Asn	Ile	Arg	Ala	Phe	185	190	195	
Met	Glu	Asp	Asn	Thr	Lys	Pro	Ala	Pro	Arg	Lys	Gln	Ile	Leu	Thr	200	205	210	

Leu Ser Trp Gln Gly Thr Gly Gln Val Ile Tyr Lys Gly Phe Leu
 215 220 225
 Phe Phe His Asn Gln Ala Thr Ser Asn Glu Ile Ile Lys Tyr Asn
 230 235 240
 Leu Gln Lys Arg Thr Val Glu Asp Arg Met Leu Leu Pro Gly Gly
 245 250 255
 Val Gly Arg Ala Leu Val Tyr Gln His Ser Pro Ser Thr Tyr Ile
 260 265 270
 Asp Leu Ala Val Asp Glu His Gly Leu Trp Ala Ile His Ser Gly
 275 280 285
 Pro Gly Thr His Ser His Leu Val Leu Thr Lys Ile Glu Pro Gly
 290 295 300
 Thr Leu Gly Val Glu His Ser Trp Asp Thr Pro Cys Arg Ser Gln
 305 310 315
 Asp Ala Glu Ala Ser Phe Leu Leu Cys Gly Val Leu Tyr Val Val
 320 325 330
 Tyr Ser Thr Gly Gly Gln Gly Pro His Arg Ile Thr Cys Ile Tyr
 335 340 345
 Asp Pro Leu Gly Thr Ile Ser Glu Glu Asp Leu Pro Asn Leu Phe
 350 355 360
 Phe Pro Lys Arg Pro Arg Ser His Ser Met Ile His Tyr Asn Pro
 365 370 375
 Arg Asp Lys Gln Leu Tyr Ala Trp Asn Glu Gly Asn Gln Ile Ile
 380 385 390
 Tyr Lys Leu Gln Thr Lys Arg Lys Leu Pro Leu Lys
 395 400

<210> 368

<211> 2281

<212> DNA

<213> Homo sapiens

<400> 368

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<210> 369
<211> 447
<212> PRT
<213> Homo sapiens

<400> 369
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Leu Gly Leu Leu Ala Leu Met Ala Thr Ala Ala Val Ala Arg Gly
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Trp Leu Arg Ala Gly Glu Glu Arg Ser Gly Arg Pro Ala Cys Gln
35 40 45
Lys Ala Asn Gly Phe Pro Pro Asp Lys Ser Ser Gly Ser Lys Lys
50 55 60
Gln Lys Gln Tyr Gln Arg Ile Arg Lys Glu Lys Pro Gln Gln His
65 70 75
Asn Phe Thr His Arg Leu Leu Ala Ala Leu Lys Ser His Ser
80 85 90
Gly Asn Ile Ser Cys Met Asp Phe Ser Ser Asn Gly Lys Tyr Leu
95 100 105
Ala Thr Cys Ala Asp Asp Arg Thr Ile Arg Ile Trp Ser Thr Lys
110 115 120
Asp Phe Leu Gln Arg Glu His Arg Ser Met Arg Ala Asn Val Glu
125 130 135
Leu Asp His Ala Thr Leu Val Arg Phe Ser Pro Asp Cys Arg Ala
140 145 150
Phe Ile Val Trp Leu Ala Asn Gly Asp Thr Leu Arg Val Phe Lys
155 160 165
Met Thr Lys Arg Glu Asp Gly Gly Tyr Thr Phe Thr Ala Thr Pro
170 175 180
Glu Asp Phe Pro Lys Lys His Lys Ala Pro Val Ile Asp Ile Gly
185 190 195
Ile Ala Asn Thr Gly Lys Phe Ile Met Thr Ala Ser Ser Asp Thr
200 205 210
Thr Val Leu Ile Trp Ser Leu Lys Gly Gln Val Leu Ser Thr Ile
215 220 225
Asn Thr Asn Gln Met Asn Asn Thr His Ala Ala Val Ser Pro Cys
230 235 240

Gly	Arg	Phe	Val	Ala	Ser	Cys	Gly	Phe	Thr	Pro	Asp	Val	Lys	Val	245	250	255
Trp	Glu	Val	Cys	Phe	Gly	Lys	Lys	Gly	Glu	Phe	Gln	Glu	Val	Val	260	265	270
Arg	Ala	Phe	Glu	Leu	Lys	Gly	His	Ser	Ala	Ala	Val	His	Ser	Phe	275	280	285
Ala	Phe	Ser	Asn	Asp	Ser	Arg	Arg	Met	Ala	Ser	Val	Ser	Lys	Asp	290	295	300
Gly	Thr	Trp	Lys	Leu	Trp	Asp	Thr	Asp	Val	Glu	Tyr	Lys	Lys	Lys	305	310	315
Gln	Asp	Pro	Tyr	Leu	Leu	Lys	Thr	Gly	Arg	Phe	Glu	Glu	Ala	Ala	320	325	330
Gly	Ala	Ala	Pro	Cys	Arg	Leu	Ala	Leu	Ser	Pro	Asn	Ala	Gln	Val	335	340	345
Leu	Ala	Leu	Ala	Ser	Gly	Ser	Ser	Ile	His	Leu	Tyr	Asn	Thr	Arg	350	355	360
Arg	Gly	Glu	Lys	Glu	Glu	Cys	Phe	Glu	Arg	Val	His	Gly	Glu	Cys	365	370	375
Ile	Ala	Asn	Leu	Ser	Phe	Asp	Ile	Thr	Gly	Arg	Phe	Leu	Ala	Ser	380	385	390
Cys	Gly	Asp	Arg	Ala	Val	Arg	Leu	Phe	His	Asn	Thr	Pro	Gly	His	395	400	405
Arg	Ala	Met	Val	Glu	Glu	Met	Gln	Gly	His	Leu	Lys	Arg	Ala	Ser	410	415	420
Asn	Glu	Ser	Thr	Arg	Gln	Arg	Leu	Gln	Gln	Gln	Leu	Thr	Gln	Ala	425	430	435
Gln	Glu	Thr	Leu	Lys	Ser	Leu	Gly	Ala	Leu	Lys	Lys				440	445	

<210> 370

<211> 1415

<212> DNA

<213> Homo sapiens

<400> 370

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<210> 371
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 371
 Met Arg Gly Ala Thr Arg Val Ser Ile Met Leu Leu Val Thr 15
 1 5 10
 Val Ser Asp Cys Ala Val Ile Thr Gly Ala Cys Glu Arg Asp Val 30
 20 25
 Gln Cys Gly Ala Gly Thr Cys Cys Ala Ile Ser Leu Trp Leu Arg 45
 35 40
 Gly Leu Arg Met Cys Thr Pro Leu Gly Arg Glu Gly Glu Glu Cys 60
 50 55 60
 His Pro Gly Ser His Lys Val Pro Phe Phe Arg Lys Arg Lys His 75
 65 70

His	Thr	Cys	Pro	Cys	Leu	Pro	Asn	Leu	Leu	Cys	Ser	Arg	Phe	Pro
				80					85					90
Asp	Gly	Arg	Tyr	Arg	Cys	Ser	Met	Asp	Leu	Lys	Asn	Ile	Asn	Phe
				95					100					105

<210> 372
 <211> 1281
 <212> DNA
 <213> Homo sapiens

<400> 372
 agcgccggcg cgtcgggcg gtaaaaggcc ggcagaaggg aggcacttga 50
 gaaatgtctt tctccaggga ccaagtttc ttcacatggt ggatgtgtgc 100
 catttgtgca ggagccctgg gggctgtctc cttggcattg ctgcttgcca 150
 acacagacgt gtttctgtcc aagccccaga aagcgccctt ggagtacctg 200
 gaggatatac acctgaaaac actggagaag gaaccaaggga ctttcaaagc 250
 aaaggagcta tgggaaaaaa atggagctgt gattatggcc gtgcggaggc 300
 caggctgttt cctctgtcga gaggaagctg cggatctgtc ctccctgaaa 350
 agcatgttgg accagctggg cgtccccctc tatgcagtgg taaaggagca 400
 catcaggact gaagtgaagg atttccagcc ttatttcaaa ggagaaatct 450
 tcctggatga aaagaaaaag ttctatgttc cacaaggcgg gaagatgatg 500
 tttatgggat ttatcgtctt gggagtgtgg tacaacttct tccgagcctg 550
 gaacggaggc ttctctggaa acctggaagg agaaggcttc atccttgggg 600
 gagttttctg ggtgggatca ggaagcagg gcattcttct tgagcaccca 650
 gaaaaagaat ttggagacaa agtaaaccta ctttctgttc tggaaagtgc 700
 taagatgata aaaccacaga ctttggcctc agagaaaaaa tgattgtgtg 750
 aaactgcca gctcagggat aaccagggac attcacctgt gttcatggga 800
 tgtattgttt ccaactcgtg ccctaaggag tgagaaaccc atttatactc 850
 tactctcagt atggattatt aatgtatttt aatattctgt tttagcccac 900
 taaggcaaaa tagcccaaaa acaagactga caaaaatctg aaaaactaat 950
 gaggattatt aagctaaaac ctgggaaata ggaggcttaa aattgactgc 1000
 caggctgggt gcagtggctc acacctgtaa tccagcact ttggggaggc 1050
 aaggtgagca agtcacttga ggtcgggagt tcgagaccag cctgagcaac 1100
 atggcgaaac ccgctctcta ctaaaaatac aaaaatcacc cgggtgtggt 1150
 ggcaggcacc tgtagtccca gctaccgggg aggctgaggc aggagaatca 1200
 cttgaacctg ggaggtggag gttcggtgta gctgagatca caccactgtg 1250
 ttcagcctg ggtgactgag actctaacta a 1281

<210> 373
 <211> 229
 <212> PRT
 <213> Homo sapiens

<400> 373
 Met Ser Phe Leu Gln Asp Pro Ser Phe Phe Thr Met Gly Met Trp
 1 5 10 15
 Ser Ile Gly Ala Gly Ala Leu Gly Ala Ala Ala Leu Ala Leu Leu
 20 25 30
 Leu Ala Asn Thr Asp Val Phe Leu Ser Lys Pro Gln Lys Ala Ala
 35 40 45
 Leu Glu Tyr Leu Glu Asp Ile Asp Leu Lys Thr Leu Glu Lys Glu
 50 55 60
 Pro Arg Thr Phe Lys Ala Lys Glu Leu Trp Glu Lys Asn Gly Ala
 65 70 75
 Val Ile Met Ala Val Arg Arg Pro Gly Cys Phe Leu Cys Arg Glu
 80 85 90
 Glu Ala Ala Asp Leu Ser Ser Leu Lys Ser Met Leu Asp Gln Leu
 95 100 105
 Gly Val Pro Leu Tyr Ala Val Val Lys Glu His Ile Arg Thr Glu
 110 115 120
 Val Lys Asp Phe Gln Pro Tyr Phe Lys Gly Glu Ile Phe Leu Asp
 125 130 135
 Glu Lys Lys Lys Phe Tyr Gly Pro Gln Arg Arg Lys Met Met Phe
 140 145 150
 Met Gly Phe Ile Arg Leu Gly Val Trp Tyr Asn Phe Phe Arg Ala
 155 160 165
 Trp Asn Gly Gly Phe Ser Gly Asn Leu Glu Gly Glu Gly Phe Ile
 170 175 180
 Leu Gly Gly Val Phe Val Val Gly Ser Gly Lys Gln Gly Ile Leu
 185 190 195
 Leu Glu His Arg Glu Lys Glu Phe Gly Asp Lys Val Asn Leu Leu
 200 205 210
 Ser Val Leu Glu Ala Ala Lys Met Ile Lys Pro Gln Thr Leu Ala
 215 220 225
 Ser Glu Lys Lys

<210> 374
 <211> 744
 <212> DNA
 <213> Homo sapiens

<400> 374
 acggaccgag ggttcgaggg agggacacgg accaggaacc tgagctaggt 50
 caaagacgcc cgggccaggt gccccgtcgc aggtgccctt gccggagat 100

gcggtaggag gggcgagcgc gagaagcccc ttctctggcg ctgccaaacc 150
 gccacccagc ccatggcgaa ccccgggctg gggctgcttc tggcgctggg 200
 cctgcccgtc ctgctggccc gctggggccg agcctggggg caaatacaga 250
 ccacttctgc aaatgagaat agcactgttt tgccttcac caccagctcc 300
 agctccgatg gcaacctgcg tccggaagcc atcactgcta tcactgtggt 350
 cttctccctc ttggctgcct tgctcctggc tgtggggctg gcaactgttg 400
 tgcggaagct tcgggagaag cggcagacgg agggcaccta cgggccagt 450
 agcgaggagc agttctccca tgcagcccgag gcccgggccc ctcaggactc 500
 caaggagacg gtgcagggct gcctgccccat ctagggtcccc tctcctgcac 550
 ctgtctccct tcattgtctg gtgaccttgg gaaagggcag tgcctctctt 600
 gggcagtcag atccaccagc tgcttaatag cagggaagaa ggtacttcaa 650
 agactctgcc cctgaggcca agagaggatg gggctattca cttttatata 700
 tttatataaa attagtagtg agatgtaaaa aaaaaaaaaa aaaa 744

<210> 375
 <211> 123
 <212> PRT
 <213> Homo sapiens

<400> 375
 Met Ala Asn Pro Gly Leu Gly Leu Leu Ala Leu Gly Leu Pro
 1 5 10 15
 Phe Leu Leu Ala Arg Trp Gly Arg Ala Trp Gly Gln Ile Gln Thr
 20 25 30
 Thr Ser Ala Asn Glu Asn Ser Thr Val Leu Pro Ser Ser Thr Ser
 35 40 45
 Ser Ser Ser Asp Gly Asn Leu Arg Pro Glu Ala Ile Thr Ala Ile
 50 55 60
 Ile Val Val Phe Ser Leu Leu Ala Ala Leu Leu Leu Ala Val Gly
 65 70 75
 Leu Ala Leu Leu Val Arg Lys Leu Arg Glu Lys Arg Gln Thr Glu
 80 85 90
 Gly Thr Tyr Arg Pro Ser Ser Glu Glu Gln Phe Ser His Ala Ala
 95 100 105
 Glu Ala Arg Ala Pro Gln Asp Ser Lys Glu Thr Val Gln Gly Cys
 110 115 120

Leu Pro Ile

<210> 376
 <211> 713
 <212> DNA
 <213> Homo sapiens

<400> 376
aatatatcat ctatttatca ttaatcaata atgtattctt ttattccaat 50
aacatttggg ttttgggatt ttaattttca aacacagcag aatgacattt 100
tttctgtcac tattattatt gttggtatgt gaagctattt ggagatccaa 150
ttcaggaagc aacacattgg agaattggcta ctttctatca agaaataaag 200
agaaccacag tcaaccacac caatcatctt tagaagacag tgtgactcct 250
accaaagctg tcaaaaccac aggcaagggc atagttaaag gacggaatct 300
tgactcaaga gggttaattc ttggtgctga agcctggggc aggggtgtaa 350
agaaaaacac ttagattcaa tgattgtaaa ttttaaggcaa atacacatat 400
tagtattacc ttagtgtaat gtatocctgt catatataca ataaggtgaa 450
attataagta ccctatgcag ttggctggac agttctaaaat tggactttat 500
taatttttaa aatcagtaac tgatttatca ctggctatgt gcttagatct 550
acaggagatc atataatttg atacaaataa aagaaaagtgt ttctctcccc 600
ttacagaatt gacattttta atgcgataca gttagaatag gaaatatgac 650
attagaaagg aagaatgaca gggagaaagg aaagaaggga aaatgttgcc 700
aaggaaaaaa aaa 713

<210> 377
<211> 90
<212> PRT
<213> Homo sapiens

<400> 377
Met Thr Phe Phe Leu Ser Leu Leu Leu Leu Val Cys Glu Ala
1 5 10 15
Ile Trp Arg Ser Asn Ser Gly Ser Asn Thr Leu Glu Asn Gly Tyr
20 25 30
Phe Leu Ser Arg Asn Lys Glu Asn His Ser Gln Pro Thr Gln Ser
35 40 45
Ser Leu Glu Asp Ser Val Thr Pro Thr Lys Ala Val Lys Thr Thr
50 55 60
Gly Lys Gly Ile Val Lys Gly Arg Asn Leu Asp Ser Arg Gly Leu
65 70 75
Ile Leu Gly Ala Glu Ala Trp Gly Arg Gly Val Lys Lys Asn Thr
80 85 90

<210> 378
<211> 3265
<212> DNA
<213> Homo sapiens

<400> 378
gccaggaata actagagagg aacaatgggg ttattcagag gttttgtttt 50

cctcttagtt ctgtgcctgc tgcaccagtc aaataactcc ttcattaagc 100
 tgaataataa tggctttgaa gatattgtca ttgttataga tcctagtgtg 150
 ccagaagatg aaaaaataat tgaacaaata gaggatattg tgactacagc 200
 ttctacgtac ctgtttgaag ccacagaaaa aagatttttt tcaaaaaatg 250
 tatctatatatt aattcctgag aattggaagg aaaatcctca gtacaaaagg 300
 ccaaaacatg aaaaccataa acatgctgat gttatagttg caccacctac 350
 actcccagggt agagatgaac catacaccaa gcagttcaca gaatgtggag 400
 agaaaggcga atacattcac ttcacccctg accttctact tggaaaaaaa 450
 caaaatgaat atggaccacc aggcaaacctg tttgtccatg agtgggctca 500
 cctccggtgg ggagtgtttg atgagtacaa tgaagatcag cctttctacc 550
 gtgctaagtc aaaaaaaatc gaagcaacaa ggtgttcocg aggtatctct 600
 ggtagaaata gagtttataa gtgtcaagga ggcagctgtc ttagtagagc 650
 atgcagaatt gattctacaa caaaactgta tggaaaagat tgcaattct 700
 ttctgataa agtacaacaa gaaaagcat ccataatgtt tatgcaaagt 750
 attgattctg ttgttgaatt ttgtaacgaa aaaaccata atcaagaagc 800
 tccaagccta caaacataa agtgcaattt tagaagtaca tgggaggtga 850
 ttagcaattc tgaggatttt aaaaacacca taccatgggt gacaccacct 900
 cctccacctg tcttctcatt gctgaagatc agtcaaagaa ttgtgtgctt 950
 agttcttgat aagtctggaa gcatgggggg taaggaccgc ctaaatcgaa 1000
 tgaatcaagc agcaaaacat ttctgctgc agactgttga aaatggatcc 1050
 tgggtgggga tggttcactt tgatagtagt gccactattg taaataagct 1100
 aatccaaata aaaagcagtg atgaagaaa cacactcatg gcaggattac 1150
 ctacatatcc tctgggagga acttccatct gctctggaat taaatatgca 1200
 tttcaggtag ttggagagct acattcccaa ctcgatggat ccgaagtact 1250
 gctgctgact gatggggagg ataacactgc aagttcttgt attgatgaag 1300
 tgaacaaaag tggggccatt gttcatttta ttgctttggg aagagctgct 1350
 gatgaagcag taatagagat gagcaagata acaggaggaa gtcattttta 1400
 tgtttcagat gaagctcaga acaatggcct cattgatgct tttggggctc 1450
 ttacatcagg aaatactgat ctctcccaga agtcccttca gctcgaaagt 1500
 aagggtatga cactgaatag taatgcctgg atgaacgaca ctgtcataat 1550
 tgatagtaca gtgggaaagg acacgttctt tctcatcaca tggaaacgtc 1600
 tgcctccagc tatttctctc tgggatccca gtggaacaat aatggaaaaa 1650

ttacacgtgg atgcaacttc caaaatggcc tatctcagta ttccaggaac 1700
 tgcaaaagtg ggcacttggg catacaatct tcaagccaaa gcgaaccacg 1750
 aacattaac tattacagta acttctcgag cagcaaatc ttctgtgcct 1800
 ccaatcacag tgaatgctaa aatgaataag gacgtaaaac gtttccccag 1850
 cccaatgatt gtttacgcag aaattctaca aggatattga cctgttcttg 1900
 gagccaatgt gactgcttc attgaatcac agaattggaca tacagaagtt 1950
 ttggaacttt tggataatgg tgcaggcgct gattctttca agaattgatg 2000
 agtctactcc aggtatttta cagcatatac agaaaatggc agatatagct 2050
 taaaagtctg ggctcatgga ggagcaaaaca ctgccaggct aaaattacgg 2100
 cctccactga atagagccgc gtacatacca ggctgggtag tgaacgggga 2150
 aattgaagca aaccgcgcaa gacctgaat tgatgaggat actcagacca 2200
 ccttgaggga tttagccga acagcatccg gaggtgcatt tgtggtatca 2250
 caagtcocaa gccttccctt gcctgaccaa taccaccaa gtcaaatcac 2300
 agacctgat gccacagttc atgaggataa gattattctt acatggacag 2350
 caccaggaga taattttgat gttggaaaag ttcaacgtta tatcataaga 2400
 ataagtcaa gtattcttga tctaagagac agttttgatg atgctcttca 2450
 agtaaaact actgatctgt caccaaaagga ggccaactcc aaggaaagct 2500
 ttgcatttaa accagaaaat atctcagaag aaaatgcaac ccacatattt 2550
 attgccatta aaagtataga taaaagcaat ttgacatcaa aagtatccaa 2600
 cattgcacaa gtaactttgt ttatccctca agcaaatcct gatgacattg 2650
 atctacacc tactoctact octactocta ctctgataa aagtcataat 2700
 tctggagtta atatttctac gctgggtatt tctgtgattg ggtctgttgt 2750
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 tcataaaaat aattttaaga tgcgggaaaa ggatactttg attaaataaa 2950
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 tttatttgtt attttatttg taagaaatag tgatgaacaa agatcctttt 3050
 tcatactgat acctggttgt atattatttg atgcaacagt tttctgaaat 3100
 gatatttcaa attgcatcaa gaaattaaaa tcatctatct gagtagtcaa 3150
 aatacaagta agggagagca aataaacaac atttggaataa aaaaaaaaaa 3200
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 3250

aaaaaaaaaa aaaaa 3265

<210> 379

<211> 919

<212> PRT

<213> Homo sapiens

<400> 379

Met	Gly	Leu	Phe	Arg	Gly	Phe	Val	Phe	Leu	Leu	Val	Leu	Cys	Leu
1				5					10					15
Leu	His	Gln	Ser	Asn	Thr	Ser	Phe	Ile	Lys	Leu	Asn	Asn	Asn	Gly
			20						25					30
Phe	Glu	Asp	Ile	Val	Ile	Val	Ile	Asp	Pro	Ser	Val	Pro	Glu	Asp
			35						40					45
Glu	Lys	Ile	Ile	Glu	Gln	Ile	Glu	Asp	Met	Val	Thr	Thr	Ala	Ser
			50						55					60
Thr	Tyr	Leu	Phe	Glu	Ala	Thr	Glu	Lys	Arg	Phe	Phe	Phe	Lys	Asn
			65						70					75
Val	Ser	Ile	Leu	Ile	Pro	Glu	Asn	Trp	Lys	Glu	Asn	Pro	Gln	Tyr
			80						85					90
Lys	Arg	Pro	Lys	His	Glu	Asn	His	Lys	His	Ala	Asp	Val	Ile	Val
			95						100					105
Ala	Pro	Pro	Thr	Leu	Pro	Gly	Arg	Asp	Glu	Pro	Tyr	Thr	Lys	Gln
			110						115					120
Phe	Thr	Glu	Cys	Gly	Glu	Lys	Gly	Glu	Tyr	Ile	His	Phe	Thr	Pro
			125						130					135
Asp	Leu	Leu	Leu	Gly	Lys	Lys	Gln	Asn	Glu	Tyr	Gly	Pro	Pro	Gly
			140						145					150
Lys	Leu	Phe	Val	His	Glu	Trp	Ala	His	Leu	Arg	Trp	Gly	Val	Phe
			155						160					165
Asp	Glu	Tyr	Asn	Glu	Asp	Gln	Pro	Phe	Tyr	Arg	Ala	Lys	Ser	Lys
			170						175					180
Lys	Ile	Glu	Ala	Thr	Arg	Cys	Ser	Ala	Gly	Ile	Ser	Gly	Arg	Asn
			185						190					195
Arg	Val	Tyr	Lys	Cys	Gln	Gly	Gly	Ser	Cys	Leu	Ser	Arg	Ala	Cys
			200						205					210
Arg	Ile	Asp	Ser	Thr	Thr	Lys	Leu	Tyr	Gly	Lys	Asp	Cys	Gln	Phe
			215						220					225
Phe	Pro	Asp	Lys	Val	Gln	Thr	Glu	Lys	Ala	Ser	Ile	Met	Phe	Met
			230						235					240
Gln	Ser	Ile	Asp	Ser	Val	Val	Glu	Phe	Cys	Asn	Glu	Lys	Thr	His
			245						250					255
Asn	Gln	Glu	Ala	Pro	Ser	Leu	Gln	Asn	Ile	Lys	Cys	Asn	Phe	Arg
			260						265					270
Ser	Thr	Trp	Glu	Val	Ile	Ser	Asn	Ser	Glu	Asp	Phe	Lys	Asn	Thr

	275	280	285
Ile Pro Met Val	Thr Pro Pro Pro Pro 290	Pro Val Phe Ser Leu 295	Leu 300
Lys Ile Ser Gln	Arg Ile Val Cys Leu 305	Val Leu Asp Lys Ser 310	Gly 315
Ser Met Gly Gly	Lys Asp Arg Leu Asn 320	Arg Met Asn Gln Ala 325	Ala 330
Lys His Phe Leu	Leu Gln Thr Val Glu 335	Asn Gly Ser Trp Val 340	Gly 345
Met Val His Phe	Asp Ser Thr Ala Thr 350	Ile Val Asn Lys Leu 355	Ile 360
Gln Ile Lys Ser	Ser Asp Glu Arg Asn 365	Thr Leu Met Ala Gly 370	Leu 375
Pro Thr Tyr Pro	Leu Gly Gly Thr Ser 380	Ile Cys Ser Gly Ile 385	Lys 390
Tyr Ala Phe Gln	Val Ile Gly Glu Leu 395	His Ser Gln Leu Asp 400	Gly 405
Ser Glu Val Leu	Leu Leu Thr Asp Gly 410	Glu Asp Asn Thr Ala 415	Ser 420
Ser Cys Ile Asp	Glu Val Lys Gln Ser 425	Gly Ala Ile Val His 430	Phe 435
Ile Ala Leu Gly	Arg Ala Ala Asp Glu 440	Ala Val Ile Glu Met 445	Ser 450
Lys Ile Thr Gly	Gly Ser His Phe Tyr 455	Val Ser Asp Glu Ala 460	Gln 465
Asn Asn Gly Leu	Ile Asp Ala Phe Gly 470	Ala Leu Thr Ser Gly 475	Asn 480
Thr Asp Leu Ser	Gln Lys Ser Leu Gln 485	Leu Glu Ser Lys Gly 490	Leu 495
Thr Leu Asn Ser	Asn Ala Trp Met Asn 500	Asp Thr Val Ile Ile 505	Asp 510
Ser Thr Val Gly	Lys Asp Thr Phe Phe 515	Leu Ile Thr Trp Asn 520	Ser 525
Leu Pro Pro Ser	Ile Ser Leu Trp Asp 530	Pro Ser Gly Thr Ile 535	Met 540
Glu Asn Phe Thr	Val Asp Ala Thr Ser 545	Lys Met Ala Tyr Leu 550	Ser 555
Ile Pro Gly Thr	Ala Lys Val Gly Thr 560	Trp Ala Tyr Asn Leu 565	Gln 570
Ala Lys Ala Asn	Pro Glu Thr Leu Thr 575	Ile Thr Val Thr Ser 580	Arg 585
Ala Ala Asn Ser	Ser Val Pro Pro Ile 590	Thr Val Asn Ala Lys 595	Met

	590	595	600
Asn Lys Asp Val	Asn Ser Phe Pro Ser	Pro Met Ile Val Tyr	Ala
	605	610	615
Glu Ile Leu Gln	Gly Tyr Val Pro Val	Leu Gly Ala Asn Val	Thr
	620	625	630
Ala Phe Ile Glu	Ser Gln Asn Gly His	Thr Glu Val Leu Glu	Leu
	635	640	645
Leu Asp Asn Gly	Ala Gly Ala Asp Ser	Phe Lys Asn Asp Gly	Val
	650	655	660
Tyr Ser Arg Tyr	Phe Thr Ala Tyr Thr	Glu Asn Gly Arg Tyr	Ser
	665	670	675
Leu Lys Val Arg	Ala His Gly Gly Ala	Asn Thr Ala Arg Leu	Lys
	680	685	690
Leu Arg Pro Pro	Leu Asn Arg Ala Ala	Tyr Ile Pro Gly Trp	Val
	695	700	705
Val Asn Gly Glu	Ile Glu Ala Asn Pro	Pro Arg Pro Glu Ile	Asp
	710	715	720
Glu Asp Thr Gln	Thr Thr Leu Glu Asp	Phe Ser Arg Thr Ala	Ser
	725	730	735
Gly Gly Ala Phe	Val Val Ser Gln Val	Pro Ser Leu Pro Leu	Pro
	740	745	750
Asp Gln Tyr Pro	Pro Ser Gln Ile Thr	Asp Leu Asp Ala Thr	Val
	755	760	765
His Glu Asp Lys	Ile Ile Leu Thr Trp	Thr Ala Pro Gly Asp	Asn
	770	775	780
Phe Asp Val Gly	Lys Val Gln Arg Tyr	Ile Ile Arg Ile Ser	Ala
	785	790	795
Ser Ile Leu Asp	Leu Arg Asp Ser Phe	Asp Asp Ala Leu Gln	Val
	800	805	810
Asn Thr Thr Asp	Leu Ser Pro Lys Glu	Ala Asn Ser Lys Glu	Ser
	815	820	825
Phe Ala Phe Lys	Pro Glu Asn Ile Ser	Glu Glu Asn Ala Thr	His
	830	835	840
Ile Phe Ile Ala	Ile Lys Ser Ile Asp	Lys Ser Asn Leu Thr	Ser
	845	850	855
Lys Val Ser Asn	Ile Ala Gln Val Thr	Leu Phe Ile Pro Gln	Ala
	860	865	870
Asn Pro Asp Asp	Ile Asp Pro Thr Pro	Thr Pro Thr Pro Thr	Pro
	875	880	885
Thr Pro Asp Lys	Ser His Asn Ser Gly	Val Asn Ile Ser Thr	Leu
	890	895	900
Val Leu Ser Val	Ile Gly Ser Val Val	Ile Val Asn Phe Ile	Leu

Ser Thr Thr Ile

<210> 380

<211> 3877

<212> DNA

<213> Homo sapiens

<400> 380

ctccttaggt ggaaaccctg ggagtagagt actgacagca aagaccggga 50
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ctcgtgtgtg gctgccttcc tatttcaagg aaagacgcca aggtaatttt 150
gaccagagg agcaatgatg tagccacctc ctaacotttc otttctgaac 200
ccccagtat gccaggattt actagagagt gtcaactcaa ccagcaagcg 250
gctccttcgg cttaacttgt ggttgagga gagaacctt gtggggctgc 300
gttctcttag cagtgtctag aagtgacttg cctgagggtg gaccagaaga 350
aaggaagggt cccctcttgc tgttggtctg acatcaggaa ggcgtgtgatg 400
ggaatgaagg tgaaaacttg gagatttcac ttcagtcatt gcttctgcct 450
gcaagatcat cctttaaaag tagagaagct gctctgtgtg gtggttaact 500
ccaagaggca gaactcgttc tagaaggaaa tggatgcaag cagctccggg 550
ggccccaac gcatgcttcc tgtggtctag ccaggggaag cccttccttg 600
ggggcccg ctttgaggga tgccaccgt tctggacgca tggctgattc 650
ctgaatgatg atggttcgcc gggggctgct tgcgtggatt tcccggttg 700
tggttttct ggtgctcctc tgctgtgcta tctctgtcct gtacatgttg 750
gcctgcaccc caaaaggta cgaggagcag ctggcactgc ccagggccaa 800
cagccccacg ggaaggagg ggtaccagc cgtccttcag gaggggagg 850
agcagcaccc caactacgtg agcagcctga agcggcagat cgcacagctc 900
aaggaggagc tgcaaggagag gtagtgagcag ctcaaggaatg ggcagtacca 950
agccagcgat gctgctggcc tgggtcttga caggagcccc ccagagaaaa 1000
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accccgagga gaagcctgtg aggaaggaca agcgggatga gttggtggaa 1200
gccattgaat cagccttga gacctgaac aatcctgcag agaacagccc 1250
caatcacctg ccttacagg cctctgattt catagaagg atctaccgaa 1300

cagaaaggga caaagggaca ttgtatgagc tcaccttcaa agggggaccac 1350
aaacacgaat tcaaacggct catcttattt cgaccattca gccccatcat 1400
gaaagtgaaa aatgaaaagc tcaacatggc caacacgctt atcaatgtta 1450
tcgtgcctct agcaaaaagg gtggacaagt tccggcagtt catgcagaat 1500
ttcagggaga tgtgcattga gcaggatggg agagtccatc tcaactgttg 1550
ttactttggg aaagaagaaa taaatgaagt caaaggaata cttgaaaaa 1600
cttccaaagc tgccaacttc aggaacttta ccttcatcca gctgaatgga 1650
gaattttctc ggggaaaggg acttgatgtt ggagcccgcg tctggaaggg 1700
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aattcctcaa tacgtgtagg ctgaatacac agccagggaa gaaggtat 1800
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 gggaaggaaat ggtttgtact aatacacagc tacagatact ttctctgaag 3150
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<210> 381

<211> 532

<212> PRT

<213> Homo sapiens

<400> 381

Met	Met	Met	Val	Arg	Arg	Gly	Leu	Leu	Ala	Trp	Ile	Ser	Arg	Val
1				5					10					15
Val	Val	Leu	Leu	Val	Leu	Leu	Cys	Cys	Ala	Ile	Ser	Val	Leu	Tyr
			20						25					30
Met	Leu	Ala	Cys	Thr	Pro	Lys	Gly	Asp	Glu	Gln	Leu	Ala	Leu	
			35						40					45
Pro	Arg	Ala	Asn	Ser	Pro	Thr	Gly	Lys	Glu	Gly	Tyr	Gln	Ala	Val
			50						55					60
Leu	Gln	Glu	Trp	Glu	Gln	His	Arg	Asn	Tyr	Val	Ser	Ser	Leu	
			65						70					75
Lys	Arg	Gln	Ile	Ala	Gln	Leu	Lys	Glu	Glu	Leu	Gln	Glu	Arg	Ser
			80						85					90

Glu Gln Leu Arg	Asn Gly Gln Tyr	Gln Ala Ser Asp Ala Ala Gly	95	100	105
Leu Gly Leu Asp	Arg Ser Pro Pro Glu	Lys Thr Gln Ala Asp Leu	110	115	120
Leu Ala Phe Leu	His Ser Gln Val Asp	Lys Ala Glu Val Asn Ala	125	130	135
Gly Val Lys Leu	Ala Thr Glu Tyr Ala	Ala Val Pro Phe Asp Ser	140	145	150
Phe Thr Leu Gln	Lys Val Tyr Gln Leu	Glu Thr Gly Leu Thr Arg	155	160	165
His Pro Glu Glu	Lys Pro Val Arg Lys	Asp Lys Arg Asp Glu Leu	170	175	180
Val Glu Ala Ile	Glu Ser Ala Leu Glu	Thr Leu Asn Asn Pro Ala	185	190	195
Glu Asn Ser Pro	Asn His Arg Pro Tyr	Thr Ala Ser Asp Phe Ile	200	205	210
Glu Gly Ile Tyr	Arg Thr Glu Arg Asp	Lys Gly Thr Leu Tyr Glu	215	220	225
Leu Thr Phe Lys	Gly Asp His Lys His	Glu Phe Lys Arg Leu Ile	230	235	240
Leu Phe Arg Pro	Phe Ser Pro Ile Met	Lys Val Lys Asn Glu Lys	245	250	255
Leu Asn Met Ala	Asn Thr Leu Ile Asn	Val Ile Val Pro Leu Ala	260	265	270
Lys Arg Val Asp	Lys Phe Arg Gln Phe	Met Gln Asn Phe Arg Glu	275	280	285
Met Cys Ile Glu	Gln Asp Gly Arg Val	His Leu Thr Val Val Tyr	290	295	300
Phe Gly Lys Glu	Glu Ile Asn Glu Val	Lys Gly Ile Leu Glu Asn	305	310	315
Thr Ser Lys Ala	Ala Asn Phe Arg Asn	Phe Thr Phe Ile Gln Leu	320	325	330
Asn Gly Glu Phe	Ser Arg Gly Lys Gly	Leu Asp Val Gly Ala Arg	335	340	345
Phe Trp Lys Gly	Ser Asn Val Leu Leu	Phe Phe Cys Asp Val Asp	350	355	360
Ile Tyr Phe Thr	Ser Glu Phe Leu Asn	Thr Cys Arg Leu Asn Thr	365	370	375
Gln Pro Gly Lys	Lys Val Phe Tyr Pro	Val Leu Phe Ser Gln Tyr	380	385	390
Asn Pro Gly Ile	Ile Tyr Gly His His	Asp Ala Val Pro Pro Leu	395	400	405

Glu	Gln	Gln	Leu	Val	Ile	Lys	Lys	Glu	Thr	Gly	Phe	Trp	Arg	Asp	
				410					415					420	
Phe	Gly	Phe	Gly	Met	Thr	Cys	Gln	Tyr	Arg	Ser	Asp	Phe	Ile	Asn	
				425					430					435	
Ile	Gly	Gly	Phe	Asp	Leu	Asp	Ile	Lys	Gly	Trp	Gly	Gly	Glu	Asp	
				440					445					450	
Val	His	Leu	Tyr	Arg	Lys	Tyr	Leu	His	Ser	Asn	Leu	Ile	Val	Val	
				455					460					465	
Arg	Thr	Pro	Val	Arg	Gly	Leu	Phe	His	Leu	Trp	His	Glu	Lys	Arg	
				470					475					480	
Cys	Met	Asp	Glu	Leu	Thr	Pro	Glu	Gln	Tyr	Lys	Met	Cys	Met	Gln	
				485					490					495	
Ser	Lys	Ala	Met	Asn	Glu	Ala	Ser	His	Gly	Gln	Leu	Gly	Met	Leu	
				500					505					510	
Val	Phe	Arg	His	Glu	Ile	Glu	Ala	His	Leu	Arg	Lys	Gln	Lys	Gln	
				515					520					525	
Lys	Thr	Ser	Ser	Lys	Lys	Thr									
				530											

<210> 382

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 382

ctcggggaaa gggacttgat gttgg 25

<210> 383

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 383

gcgaaggtga gcctctatct cgtgcc 26

<210> 384

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 384

cagcctacac gtattgagg 19

<210> 385

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 385

cagtcagtagc aatcctctggca taatatacgg ccaccatgat gcagtgccc 48

<210> 386

<211> 1346

<212> DNA

<213> Homo sapiens

<400> 386

gaaagaatgt tgtggctgct cttttttctg gtgactgccca ttcagtctga 50
actctgtcaa ccagggtgcag aaaatgcttt taaagtgaga cttagtatca 100
gaacagctct gggagataaa gcatatgcct gggatacca tgaagaatac 150
ctcttcaaag cgatggtagc tttctccatg agaaaagtcc ccaacagaga 200
agcaacagaa atttcccatg tcctactttg caatgtaacc cagagggtat 250
cattctgggt tgtggttaca gacccttcaa aaaatcacac ccttctctgt 300
gttgagggtc aatcagccat aagaatgaac aagaaccgga tcaacaatgc 350
cttctttcta aatgacaaa ctctggaatt tttaaaaatc ccttccacac 400
ttgcaccacc catggaccca totgtgccca tctggattat tataatttgt 450
gtgatatttt gcatcatcat agttgcaatt gcactactga ttttatcagg 500
gatctggcaa cgtagaagaa agaacaaaga accatctgaa gtggatgacg 550
ctgaagataa gtgtgaaaac atgatcaca ttgaaaatgg catcccctct 600
gatcccctgg acatgaaggg gggcatatta atgatgcctt catgacagag 650
gatgagaggg tcacccctct ctgaagggtt gttgttctgc ttctcaaga 700
aattaaacat ttgtttctgt gtgactgctg agcatcctga aatacaaga 750
gcagatcata tattttgttt caccattctt cttttgtaat aaattttgaa 800
tgtgcttgaa agtgaaaagc aatcaattat acccaccaac accactgaaa 850
tcataagcta ttcacgactc aaaatattct aaaatatatt tctgacagta 900
tagtgtataa atgtggtcat gtggtatttg tagttattga tttaaagcatt 950
tttagaaata agatcaggca tatgtatata ttttcacact tcaaagacct 1000
aaggaaaaat aaattttcca gtggagaata catataatat ggtgtagaaa 1050
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actaagtaaa caaaagtgag aagtaattat tgtaaatgga tggataaaaa 1150
tggaattact catatacagg gtggaatttt atcctgttat cacaccaaca 1200
gttgattata tattttctga atatcagccc ctaataggac aattctattt 1250

gttgaccatt tctacaattt gtaaaagtcc aatctgtgct aacttaataa 1300

agtaataatc atctcttttt aaaaaaaaaa aaaaaaaaaa aaaaaa 1346

<210> 387

<211> 212

<212> PRT

<213> Homo sapiens

<400> 387

Met Leu Trp Leu Leu Phe Phe Leu Val Thr Ala Ile His Ala Glu
1 5 10 15

Leu Cys Gln Pro Gly Ala Glu Asn Ala Phe Lys Val Arg Leu Ser
20 25 30

Ile Arg Thr Ala Leu Gly Asp Lys Ala Tyr Ala Trp Asp Thr Asn
35 40 45

Glu Glu Tyr Leu Phe Lys Ala Met Val Ala Phe Ser Met Arg Lys
50 55 60

Val Pro Asn Arg Glu Ala Thr Glu Ile Ser His Val Leu Leu Cys
65 70 75

Asn Val Thr Gln Arg Val Ser Phe Trp Phe Val Val Thr Asp Pro
80 85 90

Ser Lys Asn His Thr Leu Pro Ala Val Glu Val Gln Ser Ala Ile
95 100 105

Arg Met Asn Lys Asn Arg Ile Asn Asn Ala Phe Phe Leu Asn Asp
110 115 120

Gln Thr Leu Glu Phe Leu Lys Ile Pro Ser Thr Leu Ala Pro Pro
125 130 135

Met Asp Pro Ser Val Pro Ile Trp Ile Ile Ile Phe Gly Val Ile
140 145 150

Phe Cys Ile Ile Ile Val Ala Ile Ala Leu Leu Ile Leu Ser Gly
155 160 165

Ile Trp Gln Arg Arg Arg Lys Asn Lys Glu Pro Ser Glu Val Asp
170 175 180

Asp Ala Glu Asp Lys Cys Glu Asn Met Ile Thr Ile Glu Asn Gly
185 190 195

Ile Pro Ser Asp Pro Leu Asp Met Lys Gly Gly Ile Leu Met Met
200 205 210

Pro Ser

<210> 388

<211> 1371

<212> DNA

<213> Homo sapiens

<400> 388

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ggcccttgga ggggtgtgga gccctcggtc tgccccgtcc ggtctctggg 100
 gccaaaggctg gggttccctc atgtatggca agagctctac togtgcgggtg 150
 cttcttctcc ttggcataca gctcacagct ctttggccta tagcagctgt 200
 ggaaatttat acctcccggtg tgctggaggc tgtaaatggg acagatgtct 250
 gggttaaaatg cactttctcc agctttgccc ctgtgggtga tgctctaaca 300
 gtgacctgga attttctgct tctagacggg ggacctgagc agtttgtatt 350
 ctactaccac atagatccct tccaacccat gagtggggcg ttaaggacc 400
 ggggtgtctt ggatgggaat cctgagcggc acgatgcctc catccttctc 450
 tggaaactgc agttcgacga caatgggaca tacacctgcc aggtgaagaa 500
 cccacctgat gttgatggg tgatagggga gatccggtcc agcgtcgtgc 550
 acactgtacg cttctctgag atccacttcc tggtctgtgc cattggctct 600
 gcctgtgcac tgatgatcat aatagtaatt gtagtgggtc tcttccagca 650
 ttaccggaaa aagcgatggg ccgaaagagc tcataaagtg gtggagataa 700
 aatcaaaaga agaggaaagg ctcaaccaag agaaaaaggt cctctgttat 750
 ttagaagaca cagactaaca attttagatg gaagctgaga tgatttccaa 800
 gaacaagaac cctagtattt ctggaagtta atggaaactt tcttttggtc 850
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 agacaagcaa caccocctcg gagccagcac agtgcctctc catatcacca 950
 gtcatacaca gctcattat taaggcttta ttttaattca gagtgtataa 1000
 tttttcaagt gctcattagg ttttataaac aagaagctac atttttgccc 1050
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 aaaggggata aaagccaatt tgtctgttac atttctttc acgtatttct 1150
 tttagcagca cttctgctac taaagttaat gtgtttactc tcttctctc 1200
 ccacattctc aattaaaagg tgagctaagc ctctcggtg tttctgatta 1250
 acagtaaatc ctaaatccaa actgttaaat gacattttta tttttatgtc 1300
 tctccttaac tatgagacac atcttggttt actgaatttc tttcaatatt 1350
 ccaggtgata gatttttgc g 1371

<210> 389

<211> 215

<212> PRT

<213> Homo sapiens

<400> 389

Met	Tyr	Gly	Lys	Ser	Ser	Thr	Arg	Ala	Val	Leu	Leu	Leu	Gly
1				5					10				15

Ile Gln Leu Thr Ala Leu Trp Pro Ile Ala Ala Val Glu Ile Tyr
 20 25 30
 Thr Ser Arg Val Leu Glu Ala Val Asn Gly Thr Asp Ala Arg Leu
 35 40 45
 Lys Cys Thr Phe Ser Ser Phe Ala Pro Val Gly Asp Ala Leu Thr
 50 55 60
 Val Thr Trp Asn Phe Arg Pro Leu Asp Gly Gly Pro Glu Gln Phe
 65 70 75
 Val Phe Tyr Tyr His Ile Asp Pro Phe Gln Pro Met Ser Gly Arg
 80 85 90
 Phe Lys Asp Arg Val Ser Trp Asp Gly Asn Pro Glu Arg Tyr Asp
 95 100 105
 Ala Ser Ile Leu Leu Trp Lys Leu Gln Phe Asp Asp Asn Gly Thr
 110 115 120
 Tyr Thr Cys Gln Val Lys Asn Pro Pro Asp Val Asp Gly Val Ile
 125 130 135
 Gly Glu Ile Arg Leu Ser Val Val His Thr Val Arg Phe Ser Glu
 140 145 150
 Ile His Phe Leu Ala Leu Ala Ile Gly Ser Ala Cys Ala Leu Met
 155 160 165
 Ile Ile Ile Val Ile Val Val Val Leu Phe Gln His Tyr Arg Lys
 170 175 180
 Lys Arg Trp Ala Glu Arg Ala His Lys Val Val Glu Ile Lys Ser
 185 190 195
 Lys Glu Glu Glu Arg Leu Asn Gln Glu Lys Lys Val Ser Val Tyr
 200 205 210
 Leu Glu Asp Thr Asp
 215

<210> 390

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 390

cagaggccat ctagaggcca gagg 24

<210> 391

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 391

acaggcagag ccaatggcca gagg 24

<210> 392
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 392
 gagaggactg cgggagtttg ggacctttgt gcagacgtgc tcatg 45

<210> 393
 <211> 471
 <212> DNA
 <213> Homo sapiens

<400> 393
 gcatttttgt ctgtgctccc tgatcttcag gtcaccacca tgaagttctt 50
 agcagtcctg gtactcttgg gagtttccat ctttctggto cctgcccaga 100
 atccgacaac agctgctcca gctgacacgt atccagctac tggtcctgct 150
 gatgatgaag cccctgatgc tgaaccact gctgctgcaa ccactgcgac 200
 cactgctgct cctaccactg caaccaccgc tgcttctacc actgctcgta 250
 aagacattcc agttttacc aaatggggtg gggatctccc gaatggtaga 300
 gtgtgtccct gagatggaat cagcttgagt cttctgcaat tggtcacaca 350
 tattcatgct tctgtgatt tcattcaact acttaacctg cctacgatat 400
 cccctttatc tctaatacgt ttattttctt tcaataaaaa aataactatg 450
 agcaacataa aaaaaaaaaa a 471

<210> 394
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 394
 Met Lys Phe Leu Ala Val Leu Val Leu Leu Gly Val Ser Ile Phe
 1 5 10 15
 Leu Val Ser Ala Gln Asn Pro Thr Thr Ala Ala Pro Ala Asp Thr
 20 25 30
 Tyr Pro Ala Thr Gly Pro Ala Asp Asp Glu Ala Pro Asp Ala Glu
 35 40 45
 Thr Thr Ala Ala Ala Thr Thr Ala Thr Thr Ala Ala Pro Thr Thr
 50 55 60
 Ala Thr Thr Ala Ala Ser Thr Thr Ala Arg Lys Asp Ile Pro Val
 65 70 75
 Leu Pro Lys Trp Val Gly Asp Leu Pro Asn Gly Arg Val Cys Pro
 80 85 90

<210> 395
 <211> 25

<212> DNA
 <213> Artificial Sequence
 <220>
 <223> Synthetic oligonucleotide probe

<400> 395
 gctccctgat cttcatgtca ccacc 25

<210> 396
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 396
 caggagacaca ctctaccatt cgggag 26

<210> 397
 <211> 42
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 397
 ccatttttct ggtctctgcc cagaatccga caacagctgc tc 42

<210> 398
 <211> 907
 <212> DNA
 <213> Homo sapiens

<400> 398
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 aaccttggac ccttaggggt ctggatttgc tgggttaacaa gataacctga 100
 gggcaggacc ccatagggga atgctacctc ctgcccttcc acctgccctg 150
 gtgttcacgg tggcctggtc cctccttgcc gagagagtgt cctgggtcag 200
 ggacgcagag gacgctcaca gactccagcc ctttgttacc gagaggacac 250
 ttggcgaagt ccagcgatgg tccggagtcc acacacagac tggcggcagg 300
 gcaggagggg gacagttctg ttgtgcttgg ttggacagta agaggggtct 350
 ggcagctcca ggggtggggg cgccaaactc cataaagaac cagaggggtct 400
 gggccccggc cacagagtca tctgccagc tcctctgctg ctggccagtg 450
 ggagtggcac gaggtggggc tttgtgccag taaaaccaca ggctggattt 500
 gctgcggggc catggtccct gtctagggca gcaattctca acctctttgc 550
 tctcaggacc ccaaagagct ttcattgtat ctattgattt ttaccacatt 600
 agcaattaaa actgagaaat gggccgggca cgggtggctca cgctgtgaat 650

cccagcactt tgggaggccg aggcgggtgg atcacctgag atcaggagtt 700
 caagaccagc ctggccaaca tgggtaaaacc ttgttacta aaaatacaaa 750
 aaattagcca ggcacagtgg tgtgactgg tagtcccagt tactcgggag 800
 gctgaggcag gaaaatcgct tgaaccagg aggcggacgt tgcggtgagc 850
 cgagatcgcg ccgctgattc cagcctgggc gacaagatgt agactccatc 900
 tcacaca 907

<210> 399
 <211> 120
 <212> FRT
 <213> Homo sapiens

<400> 399
 Met Leu Pro Pro Ala Leu Pro Pro Ala Leu Val Phe Thr Val Ala 15
 1 5 10
 Trp Ser Leu Leu Ala Glu Arg Val Ser Trp Val Arg Asp Ala Glu 30
 20 25
 Asp Ala His Arg Leu Gln Pro Phe Val Thr Glu Arg Thr Leu Gly 45
 35 40
 Lys Val Gln Arg Trp Ser Gly Val His Thr Gln Thr Gly Gly Arg 60
 50 55
 Ala Gly Gly Gly Gln Phe Cys Cys Ala Trp Leu Asp Ser Lys Arg 75
 65 70
 Val Leu Ala Ser Pro Gly Trp Gly Ala Ala Asn Ser Ile Lys Asn 90
 80 85
 Gln Arg Val Trp Ala Pro Ala Thr Glu Ser Ser Ala Gln Leu Leu 105
 95 100
 Cys Cys Trp Pro Val Gly Val Ala Arg Gly Gly Ala Leu Cys Gln 120
 110 115

<210> 400
 <211> 893
 <212> DNA
 <213> Homo sapiens

<400> 400
 gtcatgccag tgcctgctct gtgcctgctc tgggcctgg caatggtgac 50
 ccggcctgcc tcagcgccc ccatgggcgg ccagaaactg gcacagcatg 100
 aggagctgac cctgctcttc catgggaccc tgcagctggg ccaggccctc 150
 aacgggtgtg acaggaccac ggagggacgg ctgacaaagg ccaggaaacg 200
 cctgggtctc tatggccgca caatagaact cctggggcag gaggtcagcc 250
 ggggcccggg tgacgccag gaacttcggg caagcctgtt ggagactcag 300
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 gggggagggt gccaggcac agaaggtgct acgggacagc gtgcagcggc 400

tagaagtcca gctgaggagc gcttggtg ggcctgccta ccgagaattt 450
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 cacaggccac gtgcagcggc agaggcggga gatggtggca cagcagcatc 550
 ggctgcgaca gatccaggag agactccaca cagcggcgct cccagcctga 600
 atctgcctgg atggaactga ggaccaatca tgctgcaagg aacacttcca 650
 cgccccgtga ggccccctgt caggaggagg ctgctgttcc actgggatca 700
 gccagggcgc cgggcccac ttctgagcac agagcagaga cagacgcagg 750
 cggggacaaa ggcagaggat gtacccccat tggggagggg tggaggaagg 800
 acatgtatccc ttctatgcct acacaccctt cattaaagca gagtcgtggc 850
 atttcaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa 893

<210> 401

<211> 198

<212> PRT

<213> Homo sapiens

<400> 401

Met	Pro	Val	Pro	Ala	Leu	Cys	Leu	Leu	Trp	Ala	Leu	Ala	Met	Val
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Thr	Arg	Pro	Ala	Ser	Ala	Ala	Pro	Met	Gly	Gly	Pro	Glu	Leu	Ala
				20					25				30	
Gln	His	Glu	Glu	Leu	Thr	Leu	Leu	Phe	His	Gly	Thr	Leu	Gln	Leu
				35					40				45	
Gly	Gln	Ala	Leu	Asn	Gly	Val	Tyr	Arg	Thr	Thr	Glu	Gly	Arg	Leu
				50					55				60	
Thr	Lys	Ala	Arg	Asn	Ser	Leu	Gly	Leu	Tyr	Gly	Arg	Thr	Ile	Glu
				65					70				75	
Leu	Leu	Gly	Gln	Glu	Val	Ser	Arg	Gly	Arg	Asp	Ala	Ala	Gln	Glu
				80					85				90	
Leu	Arg	Ala	Ser	Leu	Leu	Glu	Thr	Gln	Met	Glu	Glu	Asp	Ile	Leu
				95					100				105	
Gln	Leu	Gln	Ala	Glu	Ala	Thr	Ala	Glu	Val	Leu	Gly	Glu	Val	Ala
				110					115				120	
Gln	Ala	Gln	Lys	Val	Leu	Arg	Asp	Ser	Val	Gln	Arg	Leu	Glu	Val
				125					130				135	
Gln	Leu	Arg	Ser	Ala	Trp	Leu	Gly	Pro	Ala	Tyr	Arg	Glu	Phe	Glu
				140					145				150	
Val	Leu	Lys	Ala	His	Ala	Asp	Lys	Gln	Ser	His	Ile	Leu	Trp	Ala
				155					160				165	
Leu	Thr	Gly	His	Val	Gln	Arg	Gln	Arg	Arg	Glu	Met	Val	Ala	Gln
				170					175				180	
Gln	His	Arg	Leu	Arg	Gln	Ile	Gln	Glu	Arg	Leu	His	Thr	Ala	Ala

Leu Pro Ala

<210> 402

<211> 1915

<212> DNA

<213> Homo sapiens

<400> 402

ggcaacatgg ctcagcaggc ttgcccaga gccatggcaa agaatggact 50
 tgtaatttgc atcctgggtga tcacottact cctggaccag accaccagcc 100
 acacatccag attaaaagcc aggaagcaca gcaaactctg agtgagagac 150
 aaggatggag atctgaagac tcaaatgaa aagctctgga cagaagtcaa 200
 tgccttgaag gaaattcaag cctgcagac agtctgtctc cgaggcacta 250
 aagttcaca gaaatgctac cttgcttcag aaggtttgaa gcatttccat 300
 gaggccaatg aagactgcat ttccaaagga ggaatcctgg ttatcccag 350
 gaactccgac gaaatcaacg cctccaaga ctatggtaaa aggagcctgc 400
 cagggtgcaa tgacttttgg ctgggcatca atgacatggt cacggaagge 450
 aagtttgttg acgtcaacgg aatgcctatc tcttctctca actgggagcc 500
 tgcacagcct aacgggtgga agcgagaaaa ctgtgtctctg ttctcccaat 550
 cagctcaggg caagtggagt gatgaggcct gtgcagcag caagagatac 600
 atatgcgagt tcaccatccc taaataggte ttctcccaat gtgtctctca 650
 agcaagattc atcataaact ataggttcat gatctctaag atcaagtaaa 700
 aatcataatt ttacttatt aaaaaattgc aacacaagat caatgtccat 750
 agcaatatga tagcatcagc caattttgct aacacatttc tttgggattt 800
 tgccctctct ggggtatagg ggtacagaaa tattgatcca tgtgcacgca 850
 gataaaatgg cttctgctaa acagactaaa atctttctct ctagtcttcc 900
 tcacttgtac aaaccagtt tgttttcaaa aaatcacagt agcaatgcaa 950
 ctcatcactc tagaaaaagca agcttaggct acctgaaaga ttttcccttg 1000
 gaagtttagc gtatgtttga ctaacaaaaa ttccctacat cagagactct 1050
 aggtgctata taatccaaaa acttttcagc ctgtgtctca tctgtctcca 1100
 tgctggcaat aatacettgt cagcccatca ccttattttt gaattgtctc 1150
 atctcttggt gggacttgta tctgtctctc catatcagaa cacaaccccc 1200
 tgaagagggt ctgatttgat tttttttttt tcttcatgcc tacccttttt 1250
 ttggaagttt ccagccgcaa ttgaaatga aatgacaagg tgtatatattg 1300

atcaattttc attccacca ttgcattaca acctctaact taaatgggta 1350
 accctaaggc atatcaaaga agcagattgc atgataaacg gaaatagaaa 1400
 aaaagaacct acattttatt tgcttttagca tccttactct caccttttat 1450
 gagattgaga gtggacttac atttcctttt ttacattttc gtatatttat 1500
 ttttttagc catcattata tgtttaagtc tattatgggc aaccaatctt 1550
 tgggaagtga aaactgaatt taaagaatgc tatcttggaa aattgcatac 1600
 gtctgtgcaa ttttttattc tgcctagtgc tattctgctt gtttaactag 1650
 attgtacaaa ataacttcat tgcttaatat caaattacaa agtttagact 1700
 tggaggggaaa tgggcttttt agaagcaaac aattttaaat atattttgtt 1750
 ctcaataaa atagtgttta aacattgaat gtgttttgtg aacaatatcc 1800
 cactttgcaa actttaacta cacatgcttg gaattaaagt ttagtgtttt 1850
 tcattgtcca ataataaagc ctgaattctg atcaataaaa aaaaaaaaaa 1900
 aaaaaaaaaa aaaaa 1915

<210> 403

<211> 206

<212> PRT

<213> Homo sapiens

<400> 403

Met	Ala	Gln	Gln	Ala	Cys	Pro	Arg	Ala	Met	Ala	Lys	Asn	Gly	Leu	
1				5					10					15	
Val	Ile	Cys	Ile	Leu	Val	Ile	Thr	Leu	Leu	Leu	Asp	Gln	Thr	Thr	
				20					25					30	
Ser	His	Thr	Ser	Arg	Leu	Lys	Ala	Arg	Lys	His	Ser	Lys	Arg	Arg	
				35					40					45	
Val	Arg	Asp	Lys	Asp	Gly	Asp	Leu	Lys	Thr	Gln	Ile	Glu	Lys	Leu	
				50					55					60	
Trp	Thr	Glu	Val	Asn	Ala	Leu	Lys	Glu	Ile	Gln	Ala	Leu	Gln	Thr	
				65					70					75	
Val	Cys	Leu	Arg	Gly	Thr	Lys	Val	His	Lys	Lys	Cys	Tyr	Leu	Ala	
				80					85					90	
Ser	Glu	Gly	Leu	Lys	His	Phe	His	Glu	Ala	Asn	Glu	Asp	Cys	Ile	
				95					100					105	
Ser	Lys	Gly	Gly	Ile	Leu	Val	Ile	Pro	Arg	Asn	Ser	Asp	Glu	Ile	
				110					115					120	
Asn	Ala	Leu	Gln	Asp	Tyr	Gly	Lys	Arg	Ser	Leu	Pro	Gly	Val	Asn	
				125					130					135	
Asp	Phe	Trp	Leu	Gly	Ile	Asn	Asp	Met	Val	Thr	Glu	Gly	Lys	Phe	
				140					145					150	
Val	Asp	Val	Asn	Gly	Ile	Ala	Ile	Ser	Phe	Leu	Asn	Trp	Asp	Arg	

	155		160		165
Ala	Gln	Pro	Asn	Gly	Gly
				Lys	Arg
				Glu	Asn
				Cys	Val
				Leu	Phe
				Ser	
				170	180
Gln	Ser	Ala	Gln	Gly	Lys
				Trp	Ser
				Asp	Glu
				Ala	Cys
				Arg	Ser
				Ser	
				185	195
Lys	Arg	Tyr	Ile	Cys	Glu
				Phe	Thr
				Ile	Pro
				Lys	
				200	205

<210> 404
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 404
 cctgggtatc cccaggaact ccgac 25

<210> 405
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 405
 ctcttgctgc tgcgacaggc etc 23

<210> 406
 <211> 46
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 406
 cgccctccaa gactatggta aaaggagcct gccaggtgac aatgac 46

<210> 407
 <211> 570
 <212> DNA
 <213> Homo sapiens

<400> 407
 gcgaggaccg ggtataagaa gcctcgtggc ctgcccggg cagccgcagg 50
 ttccccgcgc gccccgagcc ccgcgcgcct gaagctcgcc gccctcctgg 100
 ggctctgctg ggcctgtgcc tgcagctcgc ctgctgcttt cttagtgggc 150
 tcggccaagc ctgtggccca gcctgtgctc gcctggaggt cggcgcgcca 200
 ggccgggggc gggaccctgg ccaaccacct cggcaccctc aaccgctga 250
 agctctctgt gacgagcctg ggcacccccg tgaaccacct catagagggc 300
 tcccagaagt gtgtggctga gctgggtccc caggccgtgg gggccgtgaa 350

ggccctgaag gccctgctgg gggccctgac agtgtttggc tgagccgaga 400
 ctggagcatc tacacctgag gacaagacgc tgcccacccg cgagggtga 450
 aaaccccgcc ggggggagga cgtccatcc cttcccccg gccctctca 500
 ataaactggt ttaagagcaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 550
 aaaaaaaaaa aaaaaaaaaa 570

<210> 408
 <211> 104
 <212> PRT
 <213> Homo sapiens

<400> 408
 Met Lys Leu Ala Ala Leu Leu Gly Leu Cys Val Ala Leu Ser Cys
 1 5 10 15
 Ser Ser Ala Ala Ala Phe Leu Val Gly Ser Ala Lys Pro Val Ala
 20 25 30
 Gln Pro Val Ala Ala Leu Glu Ser Ala Ala Glu Ala Gly Ala Gly
 35 40 45
 Thr Leu Ala Asn Pro Leu Gly Thr Leu Asn Pro Leu Lys Leu Leu
 50 55 60
 Leu Ser Ser Leu Gly Ile Pro Val Asn His Leu Ile Glu Gly Ser
 65 70 75
 Gln Lys Cys Val Ala Glu Leu Gly Pro Gln Ala Val Gly Ala Val
 80 85 90
 Lys Ala Leu Lys Ala Leu Leu Gly Ala Leu Thr Val Phe Gly
 95 100

<210> 409
 <211> 2089
 <212> DNA
 <213> Homo sapiens

<400> 409
 tgaaggactt ttccaggacc caaggccaca cactggaagt ctgcagctg 50
 aagggaggca ctccctggcc tccgcagccg atcacatgaa ggtggtgcc 100
 agtctctgc tctccgtct cctggcacag gtgtggctgg taccggctt 150
 ggccccagt cctcagtcgc cagagacccc agccctcag aaccagacca 200
 gcagggtagt gcaggctccc agggagggaag aggaagatga gcaggaggcc 250
 agcgaggaga aggcgggtga ggaagagaaa gcctgggtga tggccagcag 300
 gcagcagctt gccaaaggaga cttcaaacctt cggattcagc ctgctgcgaa 350
 agatctccat gaggcacgat ggcaacatgg tcttctctcc atttggcatg 400
 tccttggtcca tgacaggctt gatgctgggg gccacagggc cgactgaac 450
 ccagatcaag agagggtccc acttgcaggc cctgaagccc accaagcccc 500

<210> 410
 <211> 444
 <212> PRT
 <213> Homo sapiens

<400> 410

Met	Lys	Val	Val	Pro	Ser	Leu	Leu	Leu	Ser	Val	Leu	Leu	Ala	Gln	1	5	10	15
Val	Trp	Leu	Val	Pro	Gly	Leu	Ala	Pro	Ser	Pro	Gln	Ser	Pro	Glu	20	25	30	
Thr	Pro	Ala	Pro	Gln	Asn	Gln	Thr	Ser	Arg	Val	Val	Gln	Ala	Pro	35	40	45	
Arg	Glu	Glu	Glu	Glu	Asp	Glu	Gln	Glu	Ala	Ser	Glu	Glu	Lys	Ala	50	55	60	
Gly	Glu	Glu	Glu	Lys	Ala	Trp	Leu	Met	Ala	Ser	Arg	Gln	Gln	Leu	65	70	75	
Ala	Lys	Glu	Thr	Ser	Asn	Phe	Gly	Phe	Ser	Leu	Leu	Arg	Lys	Ile	80	85	90	
Ser	Met	Arg	His	Asp	Gly	Asn	Met	Val	Phe	Ser	Pro	Phe	Gly	Met	95	100	105	
Ser	Leu	Ala	Met	Thr	Gly	Leu	Met	Leu	Gly	Ala	Thr	Gly	Pro	Thr	110	115	120	
Glu	Thr	Gln	Ile	Lys	Arg	Gly	Leu	His	Leu	Gln	Ala	Leu	Lys	Pro	125	130	135	
Thr	Lys	Pro	Gly	Leu	Leu	Pro	Ser	Leu	Phe	Lys	Gly	Leu	Arg	Glu	140	145	150	
Thr	Leu	Ser	Arg	Asn	Leu	Glu	Leu	Gly	Leu	Ser	Gln	Gly	Ser	Phe	155	160	165	
Ala	Phe	Ile	His	Lys	Asp	Phe	Asp	Val	Lys	Glu	Thr	Phe	Phe	Asn	170	175	180	
Leu	Ser	Lys	Arg	Tyr	Phe	Asp	Thr	Glu	Cys	Val	Pro	Met	Asn	Phe	185	190	195	
Arg	Asn	Ala	Ser	Gln	Ala	Lys	Arg	Leu	Met	Asn	His	Tyr	Ile	Asn	200	205	210	
Lys	Glu	Thr	Arg	Gly	Lys	Ile	Pro	Lys	Leu	Phe	Asp	Glu	Ile	Asn	215	220	225	
Pro	Glu	Thr	Lys	Leu	Ile	Leu	Val	Asp	Tyr	Ile	Leu	Phe	Lys	Gly	230	235	240	
Lys	Trp	Leu	Thr	Pro	Phe	Asp	Pro	Val	Phe	Thr	Glu	Val	Asp	Thr	245	250	255	
Phe	His	Leu	Asp	Lys	Tyr	Lys	Thr	Ile	Lys	Val	Pro	Met	Met	Tyr	260	265	270	
Gly	Ala	Gly	Lys	Phe	Ala	Ser	Thr	Phe	Asp	Lys	Asn	Phe	Arg	Cys	275	280	285	

His Val Leu Lys Leu Pro Tyr Gln Gly Asn Ala Thr Met Leu Val
 290 295 300
 Val Leu Met Glu Lys Met Gly Asp His Leu Ala Leu Glu Asp Tyr
 305 310 315
 Leu Thr Thr Asp Leu Val Glu Thr Trp Leu Arg Asn Met Lys Thr
 320 325 330
 Arg Asn Met Glu Val Phe Phe Pro Lys Phe Lys Leu Asp Gln Lys
 335 340 345
 Tyr Glu Met His Glu Leu Leu Arg Gln Met Gly Ile Arg Arg Ile
 350 355 360
 Phe Ser Pro Phe Ala Asp Leu Ser Glu Leu Ser Ala Thr Gly Arg
 365 370 375
 Asn Leu Gln Val Ser Arg Val Leu Arg Arg Thr Val Ile Glu Val
 380 385 390
 Asp Glu Arg Gly Thr Glu Ala Val Ala Gly Ile Leu Ser Glu Ile
 395 400 405
 Thr Ala Tyr Ser Met Pro Pro Val Ile Lys Val Asp Arg Pro Phe
 410 415 420
 His Phe Met Ile Tyr Glu Glu Thr Ser Gly Met Leu Leu Phe Leu
 425 430 435
 Gly Arg Val Val Asn Pro Thr Leu Leu
 440

<210> 411
 <211> 636
 <212> DNA
 <213> Homo sapiens

<400> 411
 ctgggatcag ccaactgcagc tccctgagca ctctctacag agacgcggac 50
 ccagacatg aggaggctcc tcttggtcac cagcctggtg gttgtgctgc 100
 tgtgggaggc aggtgcagtc ccagcaccca aggtccctat caagatgcaa 150
 gtcaaacact ggccctcaga gcaggaccca gagaaggcct ggggcgcccc 200
 tgtggtggag cctccggaga aggacgacca gctggtggtg ctgttccctg 250
 tccagaagcc gaaactcttg accacgagg agaagccacg aggtcagggc 300
 agggggccca tccttccagg caccaaggcc tggatggaga ccgaggacac 350
 cctgggccgt gtcctgagtc ccgagcccg ccatgacagc ctgtaccacc 400
 ctcgcctga ggaggaccag ggcgaggaga ggccccggtt gtgggtgatg 450
 ccaaatcacc aggtgtctct gggacoggag gaagaccaag accacatcta 500
 ccacccccag tagggctcca ggggccatca ctgccccgcg cctgtcccaa 550
 ggcccaggct gttgggactg ggaccctccc taccctgccc cagctagaca 600

aataaacccc agcaggcaaa aaaaaaaaaa aaaaaa 636

<210> 412
<211> 151
<212> PRT
<213> Homo sapiens

<400> 412
Met Arg Arg Leu Leu Leu Val Thr Ser Leu Val Val Val Leu Leu
1 5 10 15
Trp Glu Ala Gly Ala Val Pro Ala Pro Lys Val Pro Ile Lys Met
20 25 30
Gln Val Lys His Trp Pro Ser Glu Gln Asp Pro Glu Lys Ala Trp
35 40 45
Gly Ala Arg Val Val Glu Pro Pro Glu Lys Asp Asp Gln Leu Val
50 55 60
Val Leu Phe Pro Val Gln Lys Pro Lys Leu Leu Thr Thr Glu Glu
65 70 75
Lys Pro Arg Gly Gln Gly Arg Gly Pro Ile Leu Pro Gly Thr Lys
80 85 90
Ala Trp Met Glu Thr Glu Asp Thr Leu Gly Arg Val Leu Ser Pro
95 100 105
Glu Pro Asp His Asp Ser Leu Tyr His Pro Pro Pro Glu Glu Asp
110 115 120
Gln Gly Glu Glu Arg Pro Arg Leu Trp Val Met Pro Asn His Gln
125 130 135
Val Leu Leu Gly Pro Glu Glu Asp Gln Asp His Ile Tyr His Pro
140 145 150
Gln

<210> 413
<211> 1176
<212> DNA
<213> Homo sapiens

<400> 413
agaaagctgc actctgttga gctccagggc gcagtggagg gagggagtga 50
aggagctctc tgtaccaag gaaagtgcag ctgagactca gacaagatta 100
caatgaacca actcagcttc ctgctgtttc tcatagcgac caccagagga 150
tggagtacag atgaggctaa tacttacttc aaggaatgga cctgtttctc 200
gtctccatct ctgcccagaa gctgcaagga aatcaaagac gaatgtccta 250
gtgcatttga tggcctgtat tttctcgcga ctgagaatgg tgttatctac 300
cagaccttct gtgacatgac ctctgggggt ggcggctgga cctgtgtggc 350
cagcgtgcat gagaatgaca tgcgtgggaa gtgcacgggtg ggcgatcgct 400

ggtccagtca gcagggcagc aaagcagact acccagaggg ggaaggcaac 450
 tgggccaact acaacacctt tggatctgca gaggcggcca cgagcgatga 500
 ctacaagaac cctggctact acgacatoca ggccaaggac ctgggcatct 550
 ggacacgtgc caataagtc cccatgcagc actggagaaa cagctccctg 600
 ctgaggtacc gcacggacac tggtctctc cagacactgg gacataatct 650
 gtttggcatc taccagaaat atccagtga atatggagaa ggaagtgtt 700
 ggactgacaa cggcccgtg atccctgtg tctatgattt tggcgacgcc 750
 cagaaaacag catcttatta ctaccctat ggccagcggg aattcactgc 800
 gggatttgtt cagttcaggg tatttaataa cgagagagca gccaacgct 850
 tgtgtgctgg aatgagggc accggtatga aactgagca tcactgcatt 900
 ggtggaggag gatacttcc agaggccagt cccagcaggt gtggagattt 950
 ttctggtttt gattggagt gatatggaac tcatgttggt tacagcagca 1000
 gccgtgagat aactgagga gctgtgctc tattctatcg ttgagagttt 1050
 tgtgggaggg aaccagacc tctctccca accatgagat cccaaggatg 1100
 gagaacaact taccagtag ctagaatgtt aatggcagaa gagaaaacaa 1150
 taaatcatat tgactcaaga aaaaaa 1176

<210> 414

<211> 313

<212> PRT

<213> Homo sapiens

<400> 414

Met	Asn	Gln	Leu	Ser	Phe	Leu	Leu	Phe	Leu	Ile	Ala	Thr	Thr	Arg
1				5					10					15
Gly	Trp	Ser	Thr	Asp	Glu	Ala	Asn	Thr	Tyr	Phe	Lys	Glu	Trp	Thr
			20						25					30
Cys	Ser	Ser	Ser	Pro	Ser	Leu	Pro	Arg	Ser	Cys	Lys	Glu	Ile	Lys
			35						40					45
Asp	Glu	Cys	Pro	Ser	Ala	Phe	Asp	Gly	Leu	Tyr	Phe	Leu	Arg	Thr
			50						55					60
Glu	Asn	Gly	Val	Ile	Tyr	Gln	Thr	Phe	Cys	Asp	Met	Thr	Ser	Gly
			65						70					75
Gly	Gly	Gly	Trp	Thr	Leu	Val	Ala	Ser	Val	His	Glu	Asn	Asp	Met
			80						85					90
Arg	Gly	Lys	Cys	Thr	Val	Gly	Asp	Arg	Trp	Ser	Ser	Gln	Gln	Gly
			95						100					105
Ser	Lys	Ala	Asp	Tyr	Pro	Glu	Gly	Asp	Gly	Asn	Trp	Ala	Asn	Tyr
			110						115					120
Asn	Thr	Phe	Gly	Ser	Ala	Glu	Ala	Ala	Thr	Ser	Asp	Asp	Tyr	Lys

125	130	135
Asn Pro Gly Tyr Tyr Asp Ile Gln Ala	Lys Asp Leu Gly Ile Trp	
140	145	150
His Val Pro Asn Lys Ser Pro Met Gln	His Trp Arg Asn Ser Ser	
155	160	165
Leu Leu Arg Tyr Arg Thr Asp Thr Gly	Phe Leu Gln Thr Leu Gly	
170	175	180
His Asn Leu Phe Gly Ile Tyr Gln Lys	Tyr Pro Val Lys Tyr Gly	
185	190	195
Glu Gly Lys Cys Trp Thr Asp Asn Gly	Pro Val Ile Pro Val Val	
200	205	210
Tyr Asp Phe Gly Asp Ala Gln Lys Thr	Ala Ser Tyr Tyr Ser Pro	
215	220	225
Tyr Gly Gln Arg Glu Phe Thr Ala Gly	Phe Val Gln Phe Arg Val	
230	235	240
Phe Asn Asn Glu Arg Ala Ala Asn Ala	Leu Cys Ala Gly Met Arg	
245	250	255
Val Thr Gly Cys Asn Thr Glu His His	Cys Ile Gly Gly Gly Gly	
260	265	270
Tyr Phe Pro Glu Ala Ser Pro Gln Gln	Cys Gly Asp Phe Ser Gly	
275	280	285
Phe Asp Trp Ser Gly Tyr Gly Thr His	Val Gly Tyr Ser Ser Ser	
290	295	300
Arg Glu Ile Thr Glu Ala Ala Val Leu	Leu Phe Tyr Arg	
305	310	

<210> 415
 <211> 1281
 <212> DNA
 <213> Homo sapiens

<400> 415
 gcggagcgg cgccggctgc gcagaggagc cgctctcgcc gccgccacct 50
 cggctgggag cccacgaggc tgccgcatcc tgccctcgga acaatgggac 100
 tcggcgcgcg aggtgcttgg gccgcgctgc tcctggggac gtgcagggtg 150
 ctgagcgtgc tgggggcccgc ccatgaaagc gcagccatgg cggcatctgc 200
 aaacatagag aattctgggc ttccacacaa ctccagtgtc aactcaacag 250
 agactctcca acatgtgcct tctgaccata caaatgaaac ttccaacagt 300
 actgtgaaac caccacttc agttgcctca gactccagta atacaacggt 350
 caccaccatg aaacctacag cggcatctaa tacaacaaca ccagggtatg 400
 tctcaacaaa tatgacttct accaccttaa agtctacacc caaacaaca 450
 agtgtttacc agaacacatc tcagatatca acatccacaa tgaccgtaac 500

ccacaatagt tcagtgacat ctgctgcttc atcagtaaca atcacaacaa 550
 ctatgcattc tgaagcaaag aaaggatcaa aatttgatac tgggagcttt 600
 gtgtggtgta ttgtattaac gctgggagtt ttatctattc ttacattgg 650
 atgcaaaatg tattactcaa gaagaggcat tcggtatcga accatagatg 700
 aacatgatgc catcatttaa ggaaatccat ggaccaagga tggaatacag 750
 attgatgctg cactatcaat taattttggt ttattaatag tttaaaacaa 800
 tattctcttt ttgaaaatag tataaacagg ccattgcatat aatgtacagt 850
 gtattacgta aatatgtaaa gattcttcaa ggtaacaagg gtttgggttt 900
 tgaaataaac atctggatct tatagaccgt tcatacaatg gttttagcaa 950
 gttcatagta agacaaacaa gtcctatctt ttttttttgg ctgggggtgg 1000
 ggcattggtc acatatgacc agtaattgaa agacgtcatc actgaaagac 1050
 agaatgccat ctgggcatac aaataagaag ttgtcacag cactcaggat 1100
 ttgggtatc tttgtagct cacataaaga acttcagtgc ttttcagagc 1150
 tggatatatc ttaattacta atgccacaca gaaattatac aatcaaaacta 1200
 gatctgaagc ataatttaag aaaacatca acattttttg tgctttaaac 1250
 tgtagtagtt ggtctagaaa caaaatactc c 1281

<210> 416
 <211> 208
 <212> PRT
 <213> Homo sapiens

<400> 416
 Met Gly Leu Gly Ala Arg Gly Ala Trp Ala Ala Leu Leu Leu Gly
 1 5 10 15
 Thr Leu Gln Val Leu Ala Leu Leu Gly Ala Ala His Glu Ser Ala
 20 25 30
 Ala Met Ala Ala Ser Ala Asn Ile Glu Asn Ser Gly Leu Pro His
 35 40 45
 Asn Ser Ser Ala Asn Ser Thr Glu Thr Leu Gln His Val Pro Ser
 50 55 60
 Asp His Thr Asn Glu Thr Ser Asn Ser Thr Val Lys Pro Pro Thr
 65 70 75
 Ser Val Ala Ser Asp Ser Ser Asn Thr Thr Val Thr Thr Met Lys
 80 85 90
 Pro Thr Ala Ala Ser Asn Thr Thr Thr Pro Gly Met Val Ser Thr
 95 100 105
 Asn Met Thr Ser Thr Thr Leu Lys Ser Thr Pro Lys Thr Thr Ser
 110 115 120
 Val Ser Gln Asn Thr Ser Gln Ile Ser Thr Ser Thr Met Thr Val

	125		130		135
Thr His Asn Ser	Ser Val Thr Ser Ala	Ala Ser Ser Val Thr	Ile		
	140		145		150
Thr Thr Thr Met	His Ser Glu Ala Lys	Lys Gly Ser Lys Phe	Asp		
	155		160		165
Thr Gly Ser Phe	Val Gly Gly Ile Val	Leu Thr Leu Gly Val	Leu		
	170		175		180
Ser Ile Leu Tyr	Ile Gly Cys Lys Met	Tyr Tyr Ser Arg Arg	Gly		
	185		190		195
Ile Arg Tyr Arg	Thr Ile Asp Glu His	Asp Ala Ile Ile			
	200		205		

<210> 417
 <211> 1728
 <212> DNA
 <213> Homo sapiens

<400> 417
 cagccggggtc ccaagcctgt gctgagcct gagcctgagc ctgagcccga 50
 gccgggagcc ggtcgcgggg gctccgggct gtgggaccgc tggggcccga 100
 gcgatggcga ccctgtgggg aggccttctt cggcttggtc ccttgctcag 150
 cctgtcgtgc ctggcgcttt ccgtgctgct gctggcgagc ctgtcagacg 200
 ccgccaaaga ttctgaggat gtcagatgta aatgtatctg ccttccctat 250
 aaagaaaatt ctgggcataa ttataataag aacatatctc agaaagattg 300
 tgattgcctt catgtttgtg agcccatgcc tgtgcggggg cctgatgtag 350
 aagcatactg tctacgctgt gaatgcaaat atgaagaaag aagctctgtc 400
 acaatcaagg ttaccattat aatttatctc tccatttttg gccttctact 450
 tctgtacatg gtatatctta ctctggttga gccatactg aagaggcgcc 500
 tctttggaca tgcacagttg atacagagtg atgatgatat tggggatcac 550
 cagccttttg caaatgcaca cgatgtgcta gccgcctccc gcagtcgagc 600
 caacgtgctg aacaaggtag aatatgcaca gcagcgctgg aagcttcaag 650
 tccaagagca gcgaaggtct gtctttgacc ggcatgttgt cctcagctaa 700
 ttgggaattg aattcaaggt gactagaaag aaacaggcag acaactggaa 750
 agaactgact gggttttgct gggtttcatt ttaatacctt gttgatitca 800
 ccaactgttg ctggaagatt caaaactgga agcaaaaact tgcttgattt 850
 ttttttcttg ttaacgtaat aatagagaca tttttaaaag cacacagctc 900
 aaagtacgcc aataagtctt ttcttatttg tgacttttac taataaaaaa 950
 aaatctgctt gtaaattatc ttgaagtctt ttacotggaa caagcactct 1000

ctttttcacc acatagtttt aacttgactt toaagataat ttccagggtt 1050
 ttgtgtgttg ttgttttttg ttgtttgtt ttggtggag aggggagga 1100
 tgccctgggaa gtggttaaca acttttttca agtcacttta ctaaacaaac 1150
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 agtgtagcca gctcatcaa agagctgact tactoatttg acttttgac 1250
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 tactctaaag actaaacata gtcttggtgt gtgtggtctt actcatcttc 1450
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 attttatttt aaaccaaac ctcctggat tgataatata tacacatttg 1550
 tcagcatttc cggctgtgtt gagaggcagc tgtttgagct ccaatatgtg 1600
 cagctttgaa ctagggtctg ggttgtgggt gcctctcttg aaaggtctaa 1650
 ccattattgg ataactggct tttttcttcc tatgtcctct ttggaatgta 1700
 acaataaaaa taatttttga aacatcaa 1728

<210> 418

<211> 198

<212> PRT

<213> Homo sapiens

<400> 418

Met	Ala	Thr	Leu	Trp	Gly	Gly	Leu	Leu	Arg	Leu	Gly	Ser	Leu	Leu	1	5	10	15
Ser	Leu	Ser	Cys	Leu	Ala	Leu	Ser	Val	Leu	Leu	Leu	Ala	Gln	Leu	20	25	30	
Ser	Asp	Ala	Ala	Lys	Asn	Phe	Glu	Asp	Val	Arg	Cys	Lys	Cys	Ile	35	40	45	
Cys	Pro	Pro	Tyr	Lys	Glu	Asn	Ser	Gly	His	Ile	Tyr	Asn	Lys	Asn	50	55	60	
Ile	Ser	Gln	Lys	Asp	Cys	Asp	Cys	Leu	His	Val	Val	Glu	Pro	Met	65	70	75	
Pro	Val	Arg	Gly	Pro	Asp	Val	Glu	Ala	Tyr	Cys	Leu	Arg	Cys	Glu	80	85	90	
Cys	Lys	Tyr	Glu	Glu	Arg	Ser	Ser	Val	Thr	Ile	Lys	Val	Thr	Ile	95	100	105	
Ile	Ile	Tyr	Leu	Ser	Ile	Leu	Gly	Leu	Leu	Leu	Tyr	Met	Val		110	115	120	
Tyr	Leu	Thr	Leu	Val	Glu	Pro	Ile	Leu	Lys	Arg	Arg	Leu	Phe	Gly	125	130	135	

His Ala Gln Leu Ile Gln Ser Asp Asp Asp Ile Gly Asp His Gln
 140 145 150
 Pro Phe Ala Asn Ala His Asp Val Leu Ala Arg Ser Arg Ser Arg
 155 160 165
 Ala Asn Val Leu Asn Lys Val Glu Tyr Ala Gln Gln Arg Trp Lys
 170 175 180
 Leu Gln Val Gln Glu Gln Arg Lys Ser Val Phe Asp Arg His Val
 185 190 195
 Val Leu Ser

<210> 419
 <211> 681
 <212> DNA
 <213> Homo sapiens

<400> 419
 gcacctgcga ccaccgtgag cagtcatggc gtactccaca gtgcagagag 50
 tcgctctggc ttctgggctt gtctgggctc tgctgctgct gctgcccagg 100
 gccttctctg ccgcgggaa gggcaggag ccgccgccga caccctgaagg 150
 aaaattgggc cgatttcac ctatgatgca tcatcaccag gcaccctcag 200
 atggccagac tctggggct cgtttccaga ggtctcacct tgccagggca 250
 tttgcaagg ccaaaggatc aggtggagggt gctggaggag gagtgagtgg 300
 aagaggctct atggggcaga ttattccaat ctacggtttt gggatttttt 350
 tatatatact gtacattcta ttaaggtaa gtagaatcat cctaatacata 400
 ttacatcaat gaaaatctaa tatggcgata aaaatcattg tctacattaa 450
 aactctttat agttcataaa attatttcaa atccatcctc tctttaaatc 500
 ctgcctcctc ttcgatgagg acttaggata gccattattt cagtttcaca 550
 taagaatggt tactcaatgt ttaagtgttt tgcccaaaaa ttcacaacta 600
 acaaggcaga actaggactt gaacatggat cttttgggtc ttaatccagt 650
 gagtataca attcaatgca ctcccctgcc a 681

<210> 420
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 420
 Met Ala Tyr Ser Thr Val Gln Arg Val Ala Leu Ala Ser Gly Leu
 1 5 10 15
 Val Leu Ala Leu Ser Leu Leu Leu Pro Lys Ala Phe Leu Ser Arg
 20 25 30
 Gly Lys Arg Gln Glu Pro Pro Pro Thr Pro Glu Gly Lys Leu Gly
 35 40 45

Arg Phe Pro Pro Met Met His His His Gln Ala Pro Ser Asp Gly
50 55 60

Gln Thr Pro Gly Ala Arg Phe Gln Arg Ser His Leu Ala Glu Ala
65 70 75

Phe Ala Lys Ala Lys Gly Ser Gly Gly Gly Ala Gly Gly Gly Gly
80 85 90

Ser Gly Arg Gly Leu Met Gly Gln Ile Ile Pro Ile Tyr Gly Phe
95 100 105

Gly Ile Phe Leu Tyr Ile Leu Tyr Ile Leu Phe Lys Val Ser Arg
110 115 120

Ile Ile Leu Ile Ile Leu His Gln
125

<210> 421

<211> 1630

<212> DNA

<213> Homo sapiens

<400> 421

cggctcgagt gcagctgtgg ggagatttca gtgcattgcc tccccctgggt 50

gtctcttcac ttggattga aagttgagag cagcatgttt tgcccactga 100

aactcatcct gctgccagtg ttactggatt attccttggg cctgaatgac 150

ttgaatgttt ccccgccctga gctaacagtc catgtgggtg attcagctct 200

gatgggatgt gttttccaga gcacagaaga caaatgtata ttcaagatag 250

actggactct gtcaccagga gagcacgcca aggacgaata tgtgtctatac 300

tattactcca atctcagtggt gccatttggg cgcttccaga accgcgtaca 350

cttgatgggg gacatcttat gcaatgatgg ctctctcctg ctccaagatg 400

tgcaagaggg tgaccagggg acctatatct gtgaaatccg cctcaaaggg 450

gagagccagg tgttcaagaa ggcgggtgga ctgcatgtgc ttccagagga 500

gccccaaagag ctcatggtcc atgtgggtgg attgattcag atgggatgtg 550

ttttccagag cacagaagtg aaacacgtga ccaaggtaga atggatattt 600

tcaggacggc gcgcaaagga ggagattgta tttcgttact accacaaact 650

caggatgtct gtggagtact ccagagctg gggccacttc cagaatcgtg 700

tgaacctggt gggggacatt ttccgcaatg acggttccat catgcttcaa 750

ggagtgaagg agtcagatgg aggaaactac acctgcagta tccacctagg 800

gaacctggtg ttcaagaaaa ccatttgtct gcatgtcagc ccggaagagc 850

ctcgaaact ggtgaccccg gcagccctga ggcctctggt cttgggtggt 900

aatcagttgg tgatcattgt gggaattgtc tgtgccaaa tccgtctgct 950

cctgttctg atattgatcg tgaagaagac ctgtggaat aagagttcag 1000

tgaattctac agtcttgggtg aagaacacga agaagactaa tccagagata 1050
 aaagaaaaac cctgccattt tgaagatgt gaaggggaga aacacattta 1100
 ctocccaata attgtacggg aggtgatcga ggaagaagaa ccaagtgaaa 1150
 aatcagaggc cacctacatg accatgcacc cagtttgcc ttctctgagg 1200
 tcagatcgga acaactcact tgaaaaaaag tcaggtgggg gaatgccaaa 1250
 aacacagcaa gctttttgag aagaatggag agtcccttca tctcagcagc 1300
 ggtggagact ctctcctgtg tgtgtcctgg gccactctac cagtgtattc 1350
 agactccgcg ctctccagct gtctcctgt ctctattgtt ggtaaatata 1400
 ctgaagatgg agaatttggg gcttggcaga gagactggac agctctggag 1450
 gaacaggcct gctgagggga ggggagcatg gacttgccct ctggagtggg 1500
 aacttggccc tgggaaccag gctgagctga gtggcctcaa acccccggtt 1550
 ggatcagacc ctctgtggg cagggttctt agtggatgag ttactgggaa 1600
 gaatcagaga taaaaaccaa cccaaatcaa 1630

<210> 422

<211> 394

<212> PRT

<213> Homo sapiens

<400> 422

Met	Phe	Cys	Pro	Leu	Lys	Leu	Ile	Leu	Leu	Pro	Val	Leu	Leu	Asp	1	5	10	15
Tyr	Ser	Leu	Gly	Leu	Asn	Asp	Leu	Asn	Val	Ser	Pro	Pro	Glu	Leu	20	25	30	35
Thr	Val	His	Val	Gly	Asp	Ser	Ala	Leu	Met	Gly	Cys	Val	Phe	Gln	35	40	45	50
Ser	Thr	Glu	Asp	Lys	Cys	Ile	Phe	Lys	Ile	Asp	Trp	Thr	Leu	Ser	50	55	60	65
Pro	Gly	Glu	His	Ala	Lys	Asp	Glu	Tyr	Val	Leu	Tyr	Tyr	Tyr	Ser	65	70	75	80
Asn	Leu	Ser	Val	Pro	Ile	Gly	Arg	Phe	Gln	Asn	Arg	Val	His	Leu	80	85	90	95
Met	Gly	Asp	Ile	Leu	Cys	Asn	Asp	Gly	Ser	Leu	Leu	Leu	Gln	Asp	95	100	105	110
Val	Gln	Glu	Ala	Asp	Gln	Gly	Thr	Tyr	Ile	Cys	Glu	Ile	Arg	Leu	110	115	120	125
Lys	Gly	Glu	Ser	Gln	Val	Phe	Lys	Lys	Ala	Val	Val	Leu	His	Val	125	130	135	140
Leu	Pro	Glu	Glu	Pro	Lys	Glu	Leu	Met	Val	His	Val	Gly	Gly	Leu	140	145	150	155
Ile	Gln	Met	Gly	Cys	Val	Phe	Gln	Ser	Thr	Glu	Val	Lys	His	Val	155	160	165	170

	155		160		165
Thr Lys Val Glu Trp	Ile Phe Ser Gly	Arg Arg Ala Lys Glu	Glu		
170		175	180		
Ile Val Phe Arg Tyr	Tyr His Lys Leu	Arg Met Ser Val Glu	Tyr		
185		190	195		
Ser Gln Ser Trp	Gly His Phe Gln Asn	Arg Val Asn Leu Val	Gly		
200		205	210		
Asp Ile Phe Arg	Asn Asp Gly Ser Ile	Met Leu Gln Gly Val	Arg		
215		220	225		
Glu Ser Asp Gly	Gly Asn Tyr Thr Cys	Ser Ile His Leu Gly	Asn		
230		235	240		
Leu Val Phe Lys	Lys Thr Ile Val Leu	His Val Ser Pro Glu	Glu		
245		250	255		
Pro Arg Thr Leu	Val Thr Pro Ala Ala	Leu Arg Pro Leu Val	Leu		
260		265	270		
Gly Gly Asn Gln	Leu Val Ile Ile Val	Gly Ile Val Cys Ala	Thr		
275		280	285		
Ile Leu Leu Leu	Pro Val Leu Ile Leu	Ile Val Lys Lys Thr	Cys		
290		295	300		
Gly Asn Lys Ser	Ser Val Asn Ser Thr	Val Leu Val Lys Asn	Thr		
305		310	315		
Lys Lys Thr Asn	Pro Glu Ile Lys Glu	Lys Pro Cys His Phe	Glu		
320		325	330		
Arg Cys Glu Gly	Glu Lys His Ile Tyr	Ser Pro Ile Ile Val	Arg		
335		340	345		
Glu Val Ile Glu	Glu Glu Glu Pro Ser	Glu Lys Ser Glu Ala	Thr		
350		355	360		
Tyr Met Thr Met	His Pro Val Trp Pro	Ser Leu Arg Ser Asp	Arg		
365		370	375		
Asn Asn Ser Leu	Glu Lys Lys Ser Gly	Gly Gly Met Pro Lys	Thr		
380		385	390		
Gln Gln Ala Phe					

<210> 423

<211> 963

<212> DNA

<213> Homo sapiens

<400> 423

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ccatctcaca tggttctacc ctactaaaga caggaagatc ataaactgac 100

agataactgaa attgtaagag ttggaaacta cattttgcaa agtcattgaa 150

ctctgagctc agttgcagta ctogggaagc catgcaggat gaagatggat 200

acatcacctt aaatattaaa actcggaac cagctctcgt ctccgttggc 250
 cctgcaccc cctcctgggtg gcgtgtgatg gctttgattc tgctgacct 300
 gtgcgtgggg atggttgcg ggctgggtgc tctggggatt tggctgtca 350
 tgcagcgcaa ttacctacaa gatgagaatg aaaatcgac aggaactctg 400
 caacaattag caaagcgctt ctgtcaatat gtggtaaaac aatcagaact 450
 aaagggcact ttcaaaggtc ataaatgcag cccctgtgac acaaactgga 500
 gatattatgg agatagctgc tatgggttct tcaggcacia cttaacatgg 550
 gaagagagta agcagtactg cactgacatg aatgctactc tctgaagat 600
 tgacaaccgg aacatttggt agtacatcaa agccaggact catttaattc 650
 gttgggtcgg attatctcgc cagaagtcca atgaggtctg gaagtgggag 700
 gatggctcgg ttatctcaga aaatatgttt gagtttttgg aagatggaaa 750
 aggaaatatg aattgtgctt attttcataa tgggaaaatg caccctacct 800
 tctgtgagaa caaacattat ttaattgtgt agagggaaggc tggcatgacc 850
 aaggtggacc aactacctta atgcaaagag gtggacagga taacacagat 900
 aagggcttta ttgtacaata aaagatatgt atgaatgcat cagtactgta 950
 aaaaaaaaaa aaa 963

<210> 424
 <211> 229
 <212> PRT
 <213> Homo sapiens

<400> 424
 Met Gln Asp Glu Asp Gly Tyr Ile Thr Leu Asn Ile Lys Thr Arg
 1 5 10 15
 Lys Pro Ala Leu Val Ser Val Gly Pro Ala Ser Ser Ser Trp Trp
 20 25 30
 Arg Val Met Ala Leu Ile Leu Leu Ile Leu Cys Val Gly Met Val
 35 40 45
 Val Gly Leu Val Ala Leu Gly Ile Trp Ser Val Met Gln Arg Asn
 50 55 60
 Tyr Leu Gln Asp Glu Asn Glu Asn Arg Thr Gly Thr Leu Gln Gln
 65 70 75
 Leu Ala Lys Arg Phe Cys Gln Tyr Val Val Lys Gln Ser Glu Leu
 80 85 90
 Lys Gly Thr Phe Lys Gly His Lys Cys Ser Pro Cys Asp Thr Asn
 95 100 105
 Trp Arg Tyr Tyr Gly Asp Ser Cys Tyr Gly Phe Phe Arg His Asn
 110 115 120
 Leu Thr Trp Glu Glu Ser Lys Gln Tyr Cys Thr Asp Met Asn Ala

	125		130		135
Thr Leu Leu Lys	Ile Asp Asn Arg Asn	Ile Val Glu Tyr Ile	Lys		
	140		145		150
Ala Arg Thr His	Leu Ile Arg Trp Val	Gly Leu Ser Arg Gln	Lys		
	155		160		165
Ser Asn Glu Val	Trp Lys Trp Glu Asp	Gly Ser Val Ile Ser	Glu		
	170		175		180
Asn Met Phe Glu	Phe Leu Glu Asp Gly	Lys Gly Asn Met Asn	Cys		
	185		190		195
Ala Tyr Phe His	Asn Gly Lys Met His	Pro Thr Phe Cys Glu	Asn		
	200		205		210
Lys His Tyr Leu	Met Cys Glu Arg Lys	Ala Gly Met Thr Lys	Val		
	215		220		225
Asp Gln Leu Pro					

<210> 425

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 425

tgagcccccgtgacacaaa ctgg 24

<210> 426

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 426

ctgagataac cgagccatcc tcccac 26

<210> 427

<211> 49

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 427

gcttctgac actaaggctg tctgctagtc agaattgcct caaaaagag 49

<210> 428

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 428
 ccaccaatgg cagccccacc t 21

 <210> 429
 <211> 17
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 429
 gactgccctc cctgccca 17

 <210> 430
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 430
 caaaaagcct ggaagtcttc aaag 24

 <210> 431
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 431
 cagctggact gcaggtgcta 20

 <210> 432
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 432
 cagtgcac agcaagtgtc ct 22

 <210> 433
 <211> 28
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 433
 ggccacctcc ttgagtcttc agttccct 28

 <210> 434
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

 <400> 434
 caactactgg ctaaagctgg tgaa 24

 <210> 435
 <211> 27
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 435
 cctttctgta taggtgatac ccaatga 27

 <210> 436
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 436
 tggccatccc taccagaggc aaaa 24

 <210> 437
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 437
 ctgaagacga cgcggtattac ta 22

 <210> 438
 <211> 19
 <212> DNA
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 <220>
 <223> Synthetic oligonucleotide probe

 <400> 438
 ggcagaaatg ggaggcaga 19

 <210> 439
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 439
 tgctctgttg gctacggctt tagtccctag 30

 <210> 440
 <211> 22

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 440
 agcagcagcc atgtagaatg aa 22

 <210> 441
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 441
 aatacgaaca gtgcacgctg at 22

 <210> 442
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 442
 tccagagagc caagcacggc aga 23

 <210> 443
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 443
 tctagccagc ttggtccaa ta 22

 <210> 444
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 444
 cctggctcta gcaccaactc ata 23

 <210> 445
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 445
 tcagtggccc taaggagatg ggcct 25

<210> 446
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 446
 caggatacag tgggaatctt gaga 24

 <210> 447
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 447
 cctgaagggc ttggagctta gt 22

 <210> 448
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 448
 tctttggcca tttcccatgg ctca 24

 <210> 449
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 449
 cccatggcga ggaggaat 18

 <210> 450
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 450
 tgcgtacgtg tgccttcag 19

 <210> 451
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

<400> 451
 cagcacccca ggcagtctgt gtgt 24

 <210> 452
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 452
 aacgtgctac acgaccagtg tact 24

 <210> 453
 <211> 27
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 453
 cacagcatat tcagatgact aaatcca 27

 <210> 454
 <211> 31
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 454
 ttgttttagtt ctccaccgtg totccacaga a 31

 <210> 455
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 455
 tgtcagaatg caacctggct t 21

 <210> 456
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 456
 tgatgtgcct ggctcagaac 20

 <210> 457
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

 <400> 457
 tgcacctaga tgtccccagc accc 24

 <210> 458
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 458
 aagatgcgcc aggtttctta 20

 <210> 459
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 459
 ctctgtacg gtctgtcac ttat 24

 <210> 460
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 460
 tggctgtcag tccagtgtgc atgg 24

 <210> 461
 <211> 29
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 461
 gcatagggat agataagatc ctgctttat 29

 <210> 462
 <211> 27
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 462
 caaattaaag taccatcag gagagaa 27

 <210> 463
 <211> 37

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 463
 aagttgctaa atatatacat tatctgcgcc aagtcca 37

 <210> 464
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 464
 gtgctgccca caattcatga 20

 <210> 465
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 465
 gtccttggtgta tgggtctgaa ttatat 26

 <210> 466
 <211> 31
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 466
 actctotgca cccacagtc accactatct c 31

 <210> 467
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 467
 ctgaggaacc agccatgtct ct 22

 <210> 468
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 468
 gaccagatgc aggtacagga tga 23

<210> 469
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
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 <210> 470
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 <220>
 <223> Synthetic oligonucleotide probe

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<400> 475
  accgcctacc gctgtgccca 20

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  cctgagagca agaaggttga gaat 24

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<210> 494
<211> 1231
<212> DNA
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cagcccgcgc gggagccgga ccgcgcgcgg aggagctcgg acggcatgct 150
gagccccctc ctttctgtaa gcccgagtcg ggagaagccc gggcaaacgc 200
aggctaagga gaccaaagcg gcgaagtcgc gagacagcgg acaagcagcg 250
gaggagaagg aggaggaggc gaaccacagag aggggcagca aaagaagcgg 300
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<210> 495

<211> 245

<212> PRT

<213> Homo Sapien

<400> 495

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Ala	Arg	Glu	Arg	Glu	Lys	Ser	Asn	Ala	Cys	Lys	Cys	Val	Ser	Ser	
				20					25					30	
Pro	Ser	Lys	Gly	Lys	Thr	Ser	Cys	Asp	Lys	Asn	Lys	Leu	Asn	Val	
				35					40					45	
Phe	Ser	Arg	Val	Lys	Leu	Phe	Gly	Ser	Lys	Lys	Arg	Arg	Arg	Arg	
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Arg	Pro	Glu	Pro	Gln	Leu	Lys	Gly	Ile	Val	Thr	Lys	Leu	Tyr	Ser	
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Arg	Gln	Gly	Tyr	His	Leu	Gln	Leu	Gln	Ala	Asp	Gly	Thr	Ile	Asp	
				80					85					90	
Gly	Thr	Lys	Asp	Glu	Asp	Ser	Thr	Tyr	Thr	Leu	Phe	Asn	Leu	Ile	
				95					100					105	
Pro	Val	Gly	Leu	Arg	Val	Val	Ala	Ile	Gln	Gly	Val	Gln	Thr	Lys	
				110					115					120	
Leu	Tyr	Leu	Ala	Met	Asn	Ser	Glu	Gly	Tyr	Leu	Tyr	Thr	Ser	Glu	
				125					130					135	
Leu	Phe	Thr	Pro	Glu	Cys	Lys	Phe	Lys	Glu	Ser	Val	Phe	Glu	Asn	
				140					145					150	
Tyr	Tyr	Val	Thr	Tyr	Ser	Ser	Met	Ile	Tyr	Arg	Gln	Gln	Gln	Ser	
				155					160					165	
Gly	Arg	Gly	Trp	Tyr	Leu	Gly	Leu	Asn	Lys	Glu	Gly	Glu	Ile	Met	
				170					175					180	
Lys	Gly	Asn	His	Val	Lys	Lys	Asn	Lys	Pro	Ala	Ala	His	Phe	Leu	
				185					190					195	
Pro	Lys	Pro	Leu	Lys	Val	Ala	Met	Tyr	Lys	Glu	Pro	Ser	Leu	His	
				200					205					210	
Asp	Leu	Thr	Glu	Phe	Ser	Arg	Ser	Gly	Ser	Gly	Thr	Pro	Thr	Lys	

Ser Arg Ser Val Ser Gly Val Leu Asn Gly Gly Lys Ser Met Ser
230 235 240

His Asn Glu Ser Thr
245

<210> 496

<211> 1471

<212> DNA

<213> Homo Sapien

<400> 496

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tggggggatt tcagtgaaaa aagtggggga tccctccat ttagagtgtg 200
gcaaaggaaa aaacaccaag gttgggttcc ttcctgacat tggcagtgcc 250
ccagtagggg tgggatgagc gaattattcc aaagctaaag tcccacaccc 300
tgtagattac aagagtggat ttggcaggag tgtgcccac aatacagtgg 350
aaagtgacct gaagatattt aaaccacgtc ttggaaattt agtgggtctt 400
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gacgttttca ataggaggca aaactcgagg gtgggatcca ctgaggagta 500
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cggtttggg gtgtctctc ccggggcgct atggcgcgcg tggccagtag 750
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<210> 497
<211> 225
<212> PRT
<213> Homo Sapien

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20 25 30
Cys Pro Arg Gly Thr Lys Ser Leu Cys Gln Lys Gln Leu Leu Ile
35 40 45
Leu Leu Ser Lys Val Arg Leu Cys Gly Gly Arg Pro Ala Arg Pro
50 55 60
Asp Arg Gly Pro Glu Pro Gln Leu Lys Gly Ile Val Thr Lys Leu
65 70 75
Phe Cys Arg Gln Gly Phe Tyr Leu Gln Ala Asn Pro Asp Gly Ser
80 85 90
Ile Gln Gly Thr Pro Glu Asp Thr Ser Ser Phe Thr His Phe Asn
95 100 105
Leu Ile Pro Val Gly Leu Arg Val Val Thr Ile Gln Ser Ala Lys
110 115 120
Leu Gly His Tyr Met Ala Met Asn Ala Glu Gly Leu Leu Tyr Ser
125 130 135
Ser Pro His Phe Thr Ala Glu Cys Arg Phe Lys Glu Cys Val Phe
140 145 150
Glu Asn Tyr Tyr Val Leu Tyr Ala Ser Ala Leu Tyr Arg Gln Arg
155 160 165
Arg Ser Gly Arg Ala Trp Tyr Leu Gly Leu Asp Lys Glu Gly Gln
170 175 180
Val Met Lys Gly Asn Arg Val Lys Lys Thr Lys Ala Ala Ala His
185 190 195
Phe Leu Pro Lys Leu Leu Glu Val Ala Met Tyr Gln Glu Pro Ser
200 205 210
Leu His Ser Val Pro Glu Ala Ser Pro Ser Ser Pro Pro Ala Pro
215 220 225

<210> 498
<211> 744

<212> DNA
<213> Homo Sapien

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ggagcagcac tgggaccggc cgtctgccag caggaggcgg agcagcccca 100
gcaagaaccg cgggctctgc aacggcaacc tgggtggatat cttctccaaa 150
gtgcgcattct tggcctcaa gaagcgcagg ttgcggcgcc aagatcccca 200
gctcaagggt atagtgaacca gggttatattg caggcaaggc tactacttgc 250
aaatgcacc ccatggagct ctcatgggaa ccaaggatga cagcactaat 300
tctacattct tcaacctcat accagtggga ctacgtgttg ttgccatcca 350
gggagtgaac acagggttgt atatatccat gaatggagaa ggtaacctct 400
accatcaga actttttacc cctgaatgca agtttaaaga atctgttttt 450
gaaaattatt atgtaatota ctcatccatg ttgtacagac aacaggaatc 500
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ggaacagagt aaagaaaacc aaaccagcag ctcatcttct acccaagcca 600
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taatgaatgg aggcaaacca gtcaacaaga gtaagacaac atag 744

<210> 499
<211> 247
<212> PRT
<213> Homo Sapien

<400> 499
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20 25 30
Ser Ser Pro Ser Lys Asn Arg Gly Leu Cys Asn Gly Asn Leu Val
35 40 45
Asp Ile Phe Ser Lys Val Arg Ile Phe Gly Leu Lys Lys Arg Arg
50 55 60
Leu Arg Arg Gln Asp Pro Gln Leu Lys Gly Ile Val Thr Arg Leu
65 70 75
Tyr Cys Arg Gln Gly Tyr Tyr Leu Gln Met His Pro Asp Gly Ala
80 85 90
Leu Asp Gly Thr Lys Asp Asp Ser Thr Asn Ser Thr Leu Phe Asn
95 100 105
Leu Ile Pro Val Gly Leu Arg Val Val Ala Ile Gln Gly Val Lys
110 115 120

Thr Gly Leu Tyr Ile Ala Met Asn Gly Glu Gly Tyr Leu Tyr Pro
125 130 135

Ser Glu Leu Phe Thr Pro Glu Cys Lys Phe Lys Glu Ser Val Phe
140 145 150

Glu Asn Tyr Tyr Val Ile Tyr Ser Ser Met Leu Tyr Arg Gln Gln
155 160 165

Glu Ser Gly Arg Ala Trp Phe Leu Gly Leu Asn Lys Glu Gly Gln
170 175 180

Ala Met Lys Gly Asn Arg Val Lys Lys Thr Lys Pro Ala Ala His
185 190 195

Phe Leu Pro Lys Pro Leu Glu Val Ala Met Tyr Arg Glu Pro Ser
200 205 210

Leu His Asp Val Gly Glu Thr Val Pro Lys Pro Gly Val Thr Pro
215 220 225

Ser Lys Ser Thr Ser Ala Ser Ala Ile Met Asn Gly Gly Lys Pro
230 235 240

Val Asn Lys Ser Lys Thr Thr
245

<210> 500
<211> 2906
<212> DNA
<213> Homo Sapien

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gaagcttttt cttgtgagcc ctggatctta acacaaatgt gtatatgtgc 200
acacagggag cattcaagaa tgaataaac cagagttaga cccgcggggg 250
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ccaccccca aaaaaaggat gattggaat gaagaaccga ggattcacaa 350
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gatatttttg gaatgaaaag ttggggcctt ttttagtaaa gtaagaact 450
ggtgtgtggg tgttttcott totttttgaa tttccacaa gaggagagga 500
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ttcatcaacc tctttttttt taaattttta ttcottttgg tatcaagatc 700
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 caaaaaaaca acaatcaaaa aaaaagacag tttattaaaa atgacacaaa 2800
 tgactgggct aaatctactg tttcaaaaaa gtgtctttac aaaaaaaca 2850
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<210> 501

<211> 640

<212> PRT

<213> Homo Sapien

<400> 501

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Pro	Arg	Phe	Asn	Arg	Ala	Leu	Phe	Asp	Pro	Leu	Leu	Val	Val	Leu
				20					25					30
Leu	Ala	Leu	Gln	Leu	Leu	Val	Val	Ala	Gly	Leu	Val	Arg	Ala	Gln
				35					40					45
Thr	Cys	Pro	Ser	Val	Cys	Ser	Cys	Ser	Asn	Gln	Phe	Ser	Lys	Val
				50					55					60
Ile	Cys	Val	Arg	Lys	Asn	Leu	Arg	Glu	Val	Pro	Asp	Gly	Ile	Ser
				65					70					75
Thr	Asn	Thr	Arg	Leu	Leu	Asn	Leu	His	Glu	Asn	Gln	Ile	Gln	Ile
				80					85					90
Ile	Lys	Val	Asn	Ser	Phe	Lys	His	Leu	Arg	His	Leu	Glu	Ile	Leu
				95					100					105
Gln	Leu	Ser	Arg	Asn	His	Ile	Arg	Thr	Ile	Glu	Ile	Gly	Ala	Phe
				110					115					120
Asn	Gly	Leu	Ala	Asn	Leu	Asn	Thr	Leu	Glu	Leu	Phe	Asp	Asn	Arg
				125					130					135
Leu	Thr	Thr	Ile	Pro	Asn	Gly	Ala	Phe	Val	Tyr	Leu	Ser	Lys	Leu
				140					145					150
Lys	Glu	Leu	Trp	Leu	Arg	Asn	Asn	Pro	Ile	Glu	Ser	Ile	Pro	Ser
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Glu	Leu	Lys	Arg	Leu	Ser	Tyr	Ile	Ser	Glu	Gly	Ala	Phe	Glu	Gly	185	190	195
Leu	Ser	Asn	Leu	Arg	Tyr	Leu	Asn	Leu	Ala	Met	Cys	Asn	Leu	Arg	200	205	210
Glu	Ile	Pro	Asn	Leu	Thr	Pro	Leu	Ile	Lys	Leu	Asp	Glu	Leu	Asp	215	220	225
Leu	Ser	Gly	Asn	His	Leu	Ser	Ala	Ile	Arg	Pro	Gly	Ser	Phe	Gln	230	235	240
Gly	Leu	Met	His	Leu	Gln	Lys	Leu	Trp	Met	Ile	Gln	Ser	Gln	Ile	245	250	255
Gln	Val	Ile	Glu	Arg	Asn	Ala	Phe	Asp	Asn	Leu	Gln	Ser	Leu	Val	260	265	270
Glu	Ile	Asn	Leu	Ala	His	Asn	Asn	Leu	Thr	Leu	Leu	Pro	His	Asp	275	280	285
Leu	Phe	Thr	Pro	Leu	His	His	Leu	Glu	Arg	Ile	His	Leu	His	His	290	295	300
Asn	Pro	Trp	Asn	Cys	Asn	Cys	Asp	Ile	Leu	Trp	Leu	Ser	Trp	Trp	305	310	315
Ile	Lys	Asp	Met	Ala	Pro	Ser	Asn	Thr	Ala	Cys	Cys	Ala	Arg	Cys	320	325	330
Asn	Thr	Pro	Pro	Asn	Leu	Lys	Gly	Arg	Tyr	Ile	Gly	Glu	Leu	Asp	335	340	345
Gln	Asn	Tyr	Phe	Thr	Cys	Tyr	Ala	Pro	Val	Ile	Val	Glu	Pro	Pro	350	355	360
Ala	Asp	Leu	Asn	Val	Thr	Glu	Gly	Met	Ala	Ala	Glu	Leu	Lys	Cys	365	370	375
Arg	Ala	Ser	Thr	Ser	Leu	Thr	Ser	Val	Ser	Trp	Ile	Thr	Pro	Asn	380	385	390
Gly	Thr	Val	Met	Thr	His	Gly	Ala	Tyr	Lys	Val	Arg	Ile	Ala	Val	395	400	405
Leu	Ser	Asp	Gly	Thr	Leu	Asn	Phe	Thr	Asn	Val	Thr	Val	Gln	Asp	410	415	420
Thr	Gly	Met	Tyr	Thr	Cys	Met	Val	Ser	Asn	Ser	Val	Gly	Asn	Thr	425	430	435
Thr	Ala	Ser	Ala	Thr	Leu	Asn	Val	Thr	Ala	Ala	Thr	Thr	Thr	Pro	440	445	450
Phe	Ser	Tyr	Phe	Ser	Thr	Val	Thr	Val	Glu	Thr	Met	Glu	Pro	Ser	455	460	465
Gln	Asp	Glu	Ala	Arg	Thr	Thr	Asp	Asn	Val	Gly	Pro	Thr	Pro	Pro	470	475	480

Val	Val	Asp	Trp	Glu	Thr	Thr	Asn	Val	Thr	Thr	Ser	Leu	Thr	Pro	
				485					490					495	
Gln	Ser	Thr	Arg	Ser	Thr	Glu	Lys	Thr	Phe	Thr	Ile	Pro	Val	Thr	
				500					505					510	
Asp	Ile	Asn	Ser	Gly	Ile	Pro	Gly	Ile	Asp	Glu	Val	Met	Lys	Thr	
				515					520					525	
Thr	Lys	Ile	Ile	Ile	Gly	Cys	Phe	Val	Ala	Ile	Thr	Leu	Met	Ala	
				530					535					540	
Ala	Val	Met	Leu	Val	Ile	Phe	Tyr	Lys	Met	Arg	Lys	Gln	His	His	
				545					550					555	
Arg	Gln	Asn	His	His	Ala	Pro	Thr	Arg	Thr	Val	Glu	Ile	Ile	Asn	
				560					565					570	
Val	Asp	Asp	Glu	Ile	Thr	Gly	Asp	Thr	Pro	Met	Glu	Ser	His	Leu	
				575					580					585	
Pro	Met	Pro	Ala	Ile	Glu	His	Glu	His	Leu	Asn	His	Tyr	Asn	Ser	
				590					595					600	
Tyr	Lys	Ser	Pro	Phe	Asn	His	Thr	Thr	Thr	Val	Asn	Thr	Ile	Asn	
				605					610					615	
Ser	Ile	His	Ser	Ser	Val	His	Glu	Pro	Leu	Leu	Ile	Arg	Met	Asn	
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Ser	Lys	Asp	Asn	Val	Gln	Glu	Thr	Gln	Ile						
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<210> 502
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 <212> DNA
 <213> Homo Sapien

<400> 502
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<210> 503
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 <213> Homo Sapien

<400> 503
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 35 40 45
 Thr Leu Asp Ile Glu Trp Leu Leu Thr Asp Asn Glu Gly Asn Gln
 50 55 60
 Lys Val Val Ile Thr Tyr Ser Ser Arg His Val Tyr Asn Asn Leu
 65 70 75
 Thr Glu Glu Gln Lys Gly Arg Val Ala Phe Ala Ser Asn Phe Leu
 80 85 90
 Ala Gly Asp Ala Ser Leu Gln Ile Glu Pro Leu Lys Pro Ser Asp
 95 100 105
 Glu Gly Arg Tyr Thr Cys Lys Val Lys Asn Ser Gly Arg Tyr Val
 110 115 120
 Trp Ser His Val Ile Leu Lys Val Leu Val Arg Pro Ser Lys Pro
 125 130 135
 Lys Cys Glu Leu Glu Gly Glu Leu Thr Glu Gly Ser Asp Leu Thr
 140 145 150
 Leu Gln Cys Glu Ser Ser Ser Gly Thr Glu Pro Ile Val Tyr Tyr
 155 160 165
 Trp Gln Arg Ile Arg Glu Lys Glu Gly Glu Asp Glu Arg Leu Pro
 170 175 180
 Pro Lys Ser Arg Ile Asp Tyr Asn His Pro Gly Arg Val Leu Leu
 185 190 195
 Gln Asn Leu Thr Met Ser Tyr Ser Gly Leu Tyr Gln Cys Thr Ala
 200 205 210
 Gly Asn Glu Ala Gly Lys Glu Ser Cys Val Val Arg Val Thr Val
 215 220 225

Gln Tyr Val Gln Ser Ile Gly Met Val Ala Gly Ala Val Thr Gly
230 235 240

Ile Val Ala Gly Ala Leu Leu Ile Phe Leu Leu Val Trp Leu Leu
245 250 255

Ile Arg Arg Lys Asp Lys Glu Arg Tyr Glu Glu Glu Glu Arg Pro
260 265 270

Asn Glu Ile Arg Glu Asp Ala Glu Ala Pro Lys Ala Arg Leu Val
275 280 285

Lys Pro Ser Ser Ser Ser Ser Gly Ser Arg Ser Ser Arg Ser Gly
290 295 300

Ser Ser Ser Thr Arg Ser Thr Ala Asn Ser Ala Ser Arg Ser Gln
305 310 315

Arg Thr Leu Ser Thr Asp Ala Ala Pro Gln Pro Gly Leu Ala Thr
320 325 330

Gln Ala Tyr Ser Leu Val Gly Pro Glu Val Arg Gly Ser Glu Pro
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<210> 504
<211> 3060
<212> DNA
<213> Homo Sapien

<400> 504
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 cttctataaa aataagtttg atggtttggc ccacttaact tctactactat 1950
 tagtaagaac ttttaacttt taatgtgtag taaggtttat tctaccttt 2000
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 cctcgatata ttcttggtt tttctgggc aaagggtgcc acattggaag 2250
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<211> 352
<212> PRT
<213> Homo Sapien

<400> 505
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Lys Ala Lys Gly Glu Thr Ala Tyr Leu Pro Cys Lys Phe Thr Leu
35 40 45
Ser Pro Glu Asp Gln Gly Pro Leu Asp Ile Glu Trp Leu Ile Ser
50 55 60
Pro Ala Asp Asn Gln Lys Val Asp Gln Val Ile Ile Leu Tyr Ser
65 70 75
Gly Asp Lys Ile Tyr Asp Asp Tyr Tyr Pro Asp Leu Lys Gly Arg
80 85 90
Val His Phe Thr Ser Asn Asp Leu Lys Ser Gly Asp Ala Ser Ile
95 100 105
Asn Val Thr Asn Leu Gln Leu Ser Asp Ile Gly Thr Tyr Gln Cys
110 115 120
Lys Val Lys Lys Ala Pro Gly Val Ala Asn Lys Lys Ile His Leu

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 aaaaa 1705

<210> 507
 <211> 206
 <212> PRT

<213> Homo Sapien

<400> 507

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				20					25					30
Val	Val	Leu	Pro	Cys	Leu	Gly	Phe	Thr	Leu	Leu	Leu	Trp	Ser	Gln
				35					40					45
Val	Ser	Gly	Ala	Gln	Gly	Gln	Glu	Phe	His	Phe	Gly	Pro	Cys	Gln
				50					55					60
Val	Lys	Gly	Val	Val	Pro	Gln	Lys	Leu	Trp	Glu	Ala	Phe	Trp	Ala
				65					70					75
Val	Lys	Asp	Thr	Met	Gln	Ala	Gln	Asp	Asn	Ile	Thr	Ser	Ala	Arg
				80					85					90
Leu	Leu	Gln	Gln	Glu	Val	Leu	Gln	Asn	Val	Ser	Asp	Ala	Glu	Ser
				95					100					105
Cys	Tyr	Leu	Val	His	Thr	Leu	Leu	Glu	Phe	Tyr	Leu	Lys	Thr	Val
				110					115					120
Phe	Lys	Asn	His	His	Asn	Arg	Thr	Val	Glu	Val	Arg	Thr	Leu	Lys
				125					130					135
Ser	Phe	Ser	Thr	Leu	Ala	Asn	Asn	Phe	Val	Leu	Ile	Val	Ser	Gln
				140					145					150
Leu	Gln	Pro	Ser	Gln	Glu	Asn	Glu	Met	Phe	Ser	Ile	Arg	Asp	Ser
				155					160					165
Ala	His	Arg	Arg	Phe	Leu	Leu	Phe	Arg	Arg	Ala	Phe	Lys	Gln	Leu
				170					175					180
Asp	Val	Glu	Ala	Ala	Leu	Thr	Lys	Ala	Leu	Gly	Glu	Val	Asp	Ile
				185					190					195
Leu	Leu	Thr	Trp	Met	Gln	Lys	Phe	Tyr	Lys	Leu				
				200					205					

<210> 508

<211> 924

<212> DNA

<213> Homo Sapien

<400> 508

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gtttccaaga aatcaaaaaga gccatccaag ctaaggacac cttcccaaat 200
gtcactatcc tgtccacatt ggagactctg cagatcatta agccottaga 250
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<210> 509

<211> 177

<212> PRT

<213> Homo Sapien

<400> 509

Met	Lys	Leu	Gln	Cys	Val	Ser	Leu	Trp	Leu	Leu	Gly	Thr	Ile	Leu	15
1				5					10						
Ile	Leu	Cys	Ser	Val	Asp	Asn	His	Gly	Leu	Arg	Arg	Cys	Leu	Ile	30
				20					25						
Ser	Thr	Asp	Met	His	His	Ile	Glu	Glu	Ser	Phe	Gln	Glu	Ile	Lys	45
				35					40						
Arg	Ala	Ile	Gln	Ala	Lys	Asp	Thr	Phe	Pro	Asn	Val	Thr	Ile	Leu	60
				50					55						
Ser	Thr	Leu	Glu	Thr	Leu	Gln	Ile	Ile	Lys	Pro	Leu	Asp	Val	Cys	75
				65					70						
Cys	Val	Thr	Lys	Asn	Leu	Leu	Ala	Phe	Tyr	Val	Asp	Arg	Val	Phe	90
				80					85						
Lys	Asp	His	Gln	Glu	Pro	Asn	Pro	Lys	Ile	Leu	Arg	Lys	Ile	Ser	105
				95					100						
Ser	Ile	Ala	Asn	Ser	Phe	Leu	Tyr	Met	Gln	Lys	Thr	Leu	Arg	Gln	120
				110					115						
Cys	Gln	Glu	Gln	Arg	Gln	Cys	His	Cys	Arg	Gln	Glu	Ala	Thr	Asn	135
				125					130						
Ala	Thr	Arg	Val	Ile	His	Asp	Asn	Tyr	Asp	Gln	Leu	Glu	Val	His	150
				140					145						
Ala	Ala	Ala	Ile	Lys	Ser	Leu	Gly	Glu	Leu	Asp	Val	Phe	Leu	Ala	

Trp Ile Asn Lys Asn His Glu Val Met Phe Ser Ala
170 175

<210> 510

<211> 996

<212> DNA

<213> Homo Sapien

<400> 510

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cccgaaggc tgcggcccct togccaagtt catctagggt cgctgg 996

<210> 511

<211> 251

<212> PRT

<213> Homo Sapien

<400> 511

Met Leu Gly Ala Arg Leu Arg Leu Trp Val Cys Ala Leu Cys Ser
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Val Cys Ser Met Ser Val Leu Arg Ala Tyr Pro Asn Ala Ser Pro
20 25 30

Leu Leu Gly Ser Ser Trp Gly Gly Leu Ile His Leu Tyr Thr Ala
 35 40 45
 Thr Ala Arg Asn Ser Tyr His Leu Gln Ile His Lys Asn Gly His
 50 55 60
 Val Asp Gly Ala Pro His Gln Thr Ile Tyr Ser Ala Leu Met Ile
 65 70 75
 Arg Ser Glu Asp Ala Gly Phe Val Val Ile Thr Gly Val Met Ser
 80 85 90
 Arg Arg Tyr Leu Cys Met Asp Phe Arg Gly Asn Ile Phe Gly Ser
 95 100 105
 His Tyr Phe Asp Pro Glu Asn Cys Arg Phe Gln His Gln Thr Leu
 110 115 120
 Glu Asn Gly Tyr Asp Val Tyr His Ser Pro Gln Tyr His Phe Leu
 125 130 135
 Val Ser Leu Gly Arg Ala Lys Arg Ala Phe Leu Pro Gly Met Asn
 140 145 150
 Pro Pro Pro Tyr Ser Gln Phe Leu Ser Arg Arg Asn Glu Ile Pro
 155 160 165
 Leu Ile His Phe Asn Thr Pro Ile Pro Arg Arg His Thr Arg Ser
 170 175 180
 Ala Glu Asp Asp Ser Glu Arg Asp Pro Leu Asn Val Leu Lys Pro
 185 190 195
 Arg Ala Arg Met Thr Pro Ala Pro Ala Ser Cys Ser Gln Glu Leu
 200 205 210
 Pro Ser Ala Glu Asp Asn Ser Pro Met Ala Ser Asp Pro Leu Gly
 215 220 225
 Val Val Arg Gly Gly Arg Val Asn Thr His Ala Gly Gly Thr Gly
 230 235 240
 Pro Glu Gly Cys Arg Pro Phe Ala Lys Phe Ile
 245 250

<210> 512
 <211> 2015
 <212> DNA
 <213> Homo Sapien

<400> 512
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 ctgctgggag gttgggtct ctgggagctc tgcaggcccc agcaccgcga 150
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 acctgatcac ccatctgtgt gcttccatcc tgcattaaaa ttcactcagt 2000
 gtggcccaaa aaaaa 2015

<210> 513
 <211> 482
 <212> PRT
 <213> Homo Sapien

<400> 513
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 20 25 30
 Arg Ala Asp Thr Ala Met Thr Thr Asp Thr Glu Val Pro Ala
 35 40 45
 Met Thr Leu Ala Pro Gly His Ala Ala Leu Glu Thr Gln Thr Leu
 50 55 60
 Ser Ala Glu Thr Ser Ser Arg Ala Ser Thr Pro Ala Gly Pro Ile
 65 70 75
 Pro Glu Ala Glu Thr Arg Gly Ala Lys Arg Ile Ser Pro Ala Arg
 80 85 90
 Glu Thr Arg Ser Phe Thr Lys Thr Ser Pro Asn Phe Met Val Leu
 95 100 105
 Ile Ala Thr Ser Val Glu Thr Ser Ala Ala Ser Gly Ser Pro Glu
 110 115 120
 Gly Ala Gly Met Thr Thr Val Gln Thr Ile Thr Gly Ser Asp Pro
 125 130 135
 Glu Glu Ala Ile Phe Asp Thr Leu Cys Thr Asp Asp Ser Ser Glu
 140 145 150
 Glu Ala Lys Thr Leu Thr Met Asp Ile Leu Thr Leu Ala His Thr
 155 160 165
 Ser Thr Glu Ala Lys Gly Leu Ser Ser Glu Ser Ser Ala Ser Ser
 170 175 180
 Asp Gly Pro His Pro Val Ile Thr Pro Ser Arg Ala Ser Glu Ser
 185 190 195
 Ser Ala Ser Ser Asp Gly Pro His Pro Val Ile Thr Pro Ser Arg
 200 205 210
 Ala Ser Glu Ser Ser Ala Ser Ser Asp Gly Pro His Pro Val Ile
 215 220 225
 Thr Pro Ser Trp Ser Pro Gly Ser Asp Val Thr Leu Leu Ala Glu
 230 235 240
 Ala Leu Val Thr Val Thr Asn Ile Glu Val Ile Asn Cys Ser Ile
 245 250 255

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<210> 515

<211> 431

<212> PRT

<213> Homo Sapien

<400> 515

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			20					25						30
Lys	Lys	Ser	Leu	Glu	Asp	Val	Val	Ile	Asp	Ile	Gln	Ser	Ser	Leu
			35					40						45
Ser	Lys	Gly	Ile	Arg	Gly	Asn	Glu	Pro	Val	Tyr	Thr	Ser	Thr	Gln
			50					55						60
Glu	Asp	Cys	Ile	Asn	Ser	Cys	Cys	Ser	Thr	Lys	Asn	Ile	Ser	Gly
			65					70						75
Asp	Lys	Ala	Cys	Asn	Leu	Met	Ile	Phe	Asp	Thr	Arg	Lys	Thr	Ala
			80					85						90
Arg	Gln	Pro	Asn	Cys	Tyr	Leu	Phe	Phe	Cys	Pro	Asn	Glu	Glu	Ala
			95					100						105
Cys	Pro	Leu	Lys	Pro	Ala	Lys	Gly	Leu	Met	Ser	Tyr	Arg	Ile	Ile
			110					115						120
Thr	Asp	Phe	Pro	Ser	Leu	Thr	Arg	Asn	Leu	Pro	Ser	Gln	Glu	Leu
			125					130						135
Pro	Gln	Glu	Asp	Ser	Leu	Leu	His	Gly	Gln	Phe	Ser	Gln	Ala	Val
			140					145						150
Thr	Pro	Leu	Ala	His	His	His	Thr	Asp	Tyr	Ser	Lys	Pro	Thr	Asp
			155					160						165
Ile	Ser	Trp	Arg	Asp	Thr	Leu	Ser	Gln	Lys	Phe	Gly	Ser	Ser	Asp
			170					175						180
His	Leu	Glu	Lys	Leu	Phe	Lys	Met	Asp	Glu	Ala	Ser	Ala	Gln	Leu
			185					190						195

Leu	Ala	Tyr	Lys	Glu	Lys	Gly	His	Ser	Gln	Ser	Ser	Gln	Phe	Ser
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Ser	Asp	Gln	Glu	Ile	Ala	His	Leu	Leu	Pro	Glu	Asn	Val	Ser	Ala
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Leu	Pro	Ala	Thr	Val	Ala	Val	Ala	Ser	Pro	His	Thr	Thr	Ser	Ala
				230					235					240
Thr	Pro	Lys	Pro	Ala	Thr	Leu	Leu	Pro	Thr	Asn	Ala	Ser	Val	Thr
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Pro	Ser	Gly	Thr	Ser	Gln	Pro	Gln	Leu	Ala	Thr	Thr	Ala	Pro	Pro
				260					265					270
Val	Thr	Thr	Val	Thr	Ser	Gln	Pro	Pro	Thr	Thr	Leu	Ile	Ser	Thr
				275					280					285
Val	Phe	Thr	Arg	Ala	Ala	Ala	Thr	Leu	Gln	Ala	Met	Ala	Thr	Thr
				290					295					300
Ala	Val	Leu	Thr	Thr	Thr	Phe	Gln	Ala	Pro	Thr	Asp	Ser	Lys	Gly
				305					310					315
Ser	Leu	Glu	Thr	Ile	Pro	Phe	Thr	Glu	Ile	Ser	Asn	Leu	Thr	Leu
				320					325					330
Asn	Thr	Gly	Asn	Val	Tyr	Asn	Pro	Thr	Ala	Leu	Ser	Met	Ser	Asn
				335					340					345
Val	Glu	Ser	Ser	Thr	Met	Asn	Lys	Thr	Ala	Ser	Trp	Glu	Gly	Arg
				350					355					360
Glu	Ala	Ser	Pro	Gly	Ser	Ser	Ser	Gln	Gly	Ser	Val	Pro	Glu	Asn
				365					370					375
Gln	Tyr	Gly	Leu	Pro	Phe	Glu	Lys	Trp	Leu	Leu	Ile	Gly	Ser	Leu
				380					385					390
Leu	Phe	Gly	Val	Leu	Phe	Leu	Val	Ile	Gly	Leu	Val	Leu	Leu	Gly
				395					400					405
Arg	Ile	Leu	Ser	Glu	Ser	Leu	Arg	Arg	Lys	Arg	Tyr	Ser	Arg	Leu
				410					415					420
Asp	Tyr	Leu	Ile	Asn	Gly	Ile	Tyr	Val	Asp	Ile				
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<210> 516
 <211> 2749
 <212> DNA
 <213> Homo Sapien

<220>
 <221> unsure
 <222> 1869, 1887
 <223> unknown base

<400> 516
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